

The National Federation of Women's Institutes

*Home Made
Wines Syrups
and Cordials*



Five Shillings

G Wilson

HOME-MADE
WINES, SYRUPS AND CORDIALS

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WINES, SYRUPS
AND CORDIALS

RECIPES OF WOMEN'S INSTITUTE MEMBERS

EDITED BY

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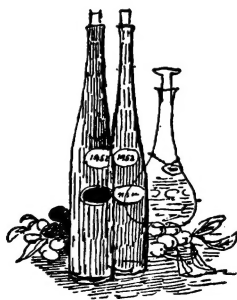
WITH A FOREWORD BY

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Foreword

I have long been an admirer of the Women's Institutes, and at one time or another in most of our counties an appreciative guest of their hospitality. Here, I quickly realised, was a versatile movement which, among its diverse contributions to our national life, tempered the loneliness of many country homes and created opportunities for the discovery and worthy employment of many cloistered gifts and resources.

The pioneer work of the Institutes during these latter years in the recovery and recording of village history had proved what a valuable part the Institutes could play in the rescue and preservation of neglected and perishable riches. More than once a passing thought had crossed my mind for the enlistment in other causes of this unique intelligence service. But none of them was so ingenious, so daring or so fertile as the happy idea which this book embodies. I salute whoever conceived it, and congratulate all those who have joined in an able review of the generous contributions which field and garden, woodland and hedgerow can make to our cupboards and our cellars.

Here is the essence of a countrywide enquiry which elicited over 700 recipes for home-made wines, syrups and cordials. After they had been sorted and some of them neatly combined, about 150 of them were expertly scrutinised by Dr. F. W. Beech of the famous Long Ashton Research Station. They are fortified in these pages by detailed guidance for their use and for the choice and control of appliances for the brewing.

A glance at the index will both refresh and extend many country memories and whet many town-bred tastes. It will discover there wines expressed from grape and apricot, pea pod and parsnip; liqueurs compounded from the cherry and the sloe; cordials fabricated from

rhubarb and blackberries; drinks for refreshment on hot days and for solace on cold nights.

I commend this engaging book as handsomely qualified to enrich the hospitalities and enhance the enjoyments and comforts of town and country homes alike.

June 1954

Stephen Tallents

THE LEGAL POSITION

IN ORDER that readers of this book may be fully informed of the legal position relating to the making of home-made wines the advice of the Customs and Excise Department has been sought.

We learn that British wine means any liquor which is made from fruit and sugar or from fruit or sugar mixed with any other material which has undergone a process of fermentation in the manufacture thereof, and **includes British wines, home-made wines, mead and metheglin.** Such wines may be made quite freely **provided that they are not made for sale.**

If, however, wines are made for sale the maker must comply fully with the Excise law and must, among other things, take out a licence, keep stock accounts, render returns of wines delivered, pay duty and allow officers of Customs and Excise access at any time to the premises used for making wine.

Compliance with these regulations would be very onerous for the private person making wines at home and in general the making of British wines for sale can only be undertaken by substantial concerns with suitable premises. Any officer of Customs and Excise would be glad to give full information to any person requiring it.

It will be seen, therefore, that it is illegal to sell wines (unless these regulations are complied with) either privately, or at sales, produce exhibitions, W.I. markets or other events.

Also those who brew beer for their own consumption may not—under the Customs & Excise Act—sell any of this beer.

Since 18 April 1956, ciders and perries of high alcohol content (greater than 15 % proof spirit) have been liable to excise duty if

sold; they can still be made in the home without being subject to duty. Anyone wishing to sell such ciders should read Notice No. 200 (Excise Duty on Strengthened Cider and Perry) and apply to his local Officer of Customs and Excise for the necessary forms and licence.

WARNING

It should be realised that many home-made wines have a very high alcoholic content and care should therefore be exercised in their use. They should not, of course, be given to children any more than bought alcoholic beverages.



Introduction

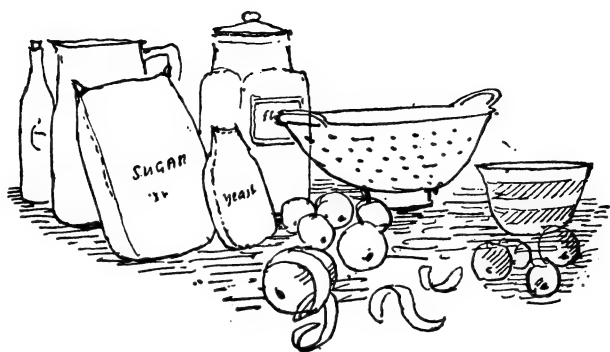
This book has been written to help those who wish to make wines and syrups in the home, using simple domestic equipment. The book has been divided into two main sections—instructional chapters and recipe chapters. In the first group of chapters the basic principles are explained in some detail and they should be referred to when in doubt about a particular point. The recipes in the second section have been grouped according to the source of the raw material for ease of reference and each recipe chapter contains sufficient basic information to prepare a wine, syrup, or cordial without need for continual reference to the first section. Originally, seven hundred recipes were sent in by members of the Women's Institutes and these

have been condensed and re-written in their present uniform style. In some cases the amounts of ingredients or the method of preparation have been altered where it has been considered that difficulties might arise if the original recipe were followed.

The preparation of wines and syrups can be a fascinating hobby but a certain amount of care and attention to detail is necessary to ensure good results. It is suggested, therefore, that a simple wine—*e.g.* blackberry—should be tried first. This makes an excellent wine whether made dry or sweet, still or sparkling, and will enable the maker to decide whether he or she is sufficiently interested to proceed further. This is better than trying to make a large number of wines in rapid succession, finding that time does not permit close attention to each and resulting in the production of a number of curiously-flavoured vinegars! The aim should be to make a gallon of one wine in the first year and, if this is liked, to increase gradually the number of fermentations in succeeding years. In this way the bottles of finished wine will begin to accumulate in the cellar and will receive the necessary maturing period, which is essential if they are to attain their finest flavour.

Wines and syrups are pleasant ways of offering hospitality to visiting friends and, drunk in moderation, are good for promoting healthy digestion. Syrups are especially beneficial for children, since the goodness of the fruits is preserved and they are thus valuable for drinking in the dark winter months.

Finally, a note of caution is needed. Home-made wines, liqueurs, strong ciders and vinegars are tax free **provided** they are not sold. For the same reason no attempt should be made to distil wines; not only does it contravene the law, it is also quite possible to go blind after drinking the resulting potion, since it may easily contain methyl alcohol.



Equipment

A certain amount of equipment is required for making small quantities of wine in the home; most of it will be found in any kitchen and the remainder can be purchased for a few shillings. It is suggested that at first, beginners should use what equipment they have already and only buy the refinements when they have decided they really wish to continue with their wine-making experiments. The necessary items of equipment will be given in the order in which they will be used.

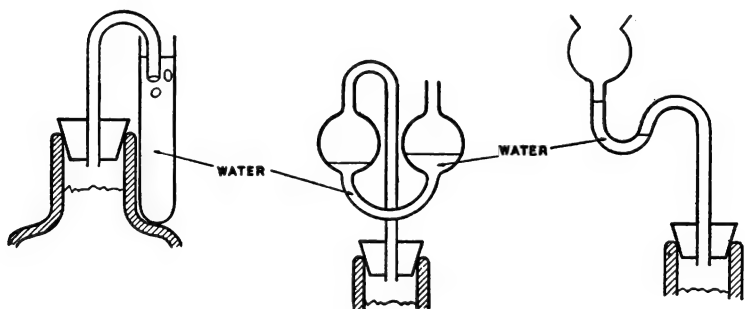
Any equipment used for wine- or syrup-making must be made of glass, non-resinous wood (*i.e.* oak, beech, ash, etc.), stainless steel, earthenware, silver-plate, tin-plate, aluminium, monel metal, polythene or sound enamelled ware. No other material should be used, as unpleasant flavours will be imparted to the wine or syrup. Glazed earthenware should be avoided

if the surface is cracked or 'crazed.' It is essential that utensils or receptacles used for wine-making should never have been used previously for insecticides, fungicides, weed-killers or any other poisonous materials.

- (1) *Wooden board.* A sound chopping or bread board.
- (2) *Knife.* A sharp stainless steel or silver knife.
- (3) *Colander.* An aluminium or enamelled colander for washing and draining the raw material.
- (4) *Measures.* Jugs, graduated measure and, if possible, a pair of scales with the necessary weights.
- (5) *Bowl.* An earthenware, aluminium, plastic or enamelled bowl for the early stages of extraction or fermentation.
- (6) *Jug.* Some wines need a preliminary fermentation of a week or more to allow complete extraction from the raw materials. A jug from the old-fashioned bedroom wash-stand is ideal, provided the surface is sound, since the atmosphere of carbon dioxide above the fermentation is less easily dispersed by air currents. The bowl from the same set can be used for (5). White polythene buckets are probably more readily available now.
- (7) *Cloths.* Several layers of butter muslin are needed for straining off the solid material. Close-textured, knitted or woven nylon or terylene cloth is very good for squeezing out pulp since a greater pressure can be exerted without bursting the cloth. In some instances a jelly bag is satisfactory. A thick, closely-woven cloth is also needed for covering the bowl or jug during the early stages of fermentation.
- (8) *Jar or cask.* A glass jar or wooden cask is needed for the main fermentation and for storage purposes. A one-gallon jar is the smallest economical size though there are other sizes available up to twelve-gallon carboys. Such jars can often be obtained from a local soft drinks manufacturer or a second-hand bottle dealer. An even better type of jar is

an aspirator, which is a glass jar fitted with a tap near the base; this enables the wine to be drawn off very easily. A herbalist or the ubiquitous junk yard may provide one, although it is better to buy them new from companies supplying chemical apparatus, unless their previous contents are known with certainty. If large quantities of wine are being made it is best to use a cask, but only if a clean, sound, sweet-smelling cask is available; do **not** use a vinegar cask. When not in use the cask needs very careful attention if it is to be kept sweet and the necessary directions are given in the following chapter. Five gallon plastic containers, normally used for commercial wines, are easier to keep clean than wooden casks.

- (9) *Air lock*. This is essential to keep an atmosphere of carbon dioxide above the surface of the fermenting wine and so prevent the formation of vinegar. Three forms are available, one being an inverted U-tube with arms of unequal length, the longer passing through a cork in the neck of the jar and the shorter arm dipping into a glass of water.



The second type is manufactured and consists of a piece of glass tubing incorporating two bulbs half full of water. A plastic version is now available, which is less liable to

accidental damage. Or, if one of the family is studying chemistry persuade him or her to make a third type by putting a double bend in the stem of a thistle funnel and drop a small quantity of water into this. These air locks should, of course, be passed through a bung in the neck of the jar or cask and it is advisable to cover the top of the cork with paraffin wax to make it airtight. The bubbles of carbon dioxide escaping through the water give an indication of the state of the fermentation.

If none of these air locks is available a piece of polythene held in place with an elastic band can be used instead.

- (10) *Rubber tube.* At the end of the fermentation it is essential to 'rack' or syphon off the wine from the yeast deposit. A 4 ft. length of clean rubber or pliable plastic tubing ($\frac{1}{4}$ in. or $\frac{1}{2}$ in. diameter) is ideal for this, although with small jars it is possible to decant off the wine if great care is exercised. The disadvantage of decanting is that the last pint or so is usually hazy with the stirred-up yeast deposit.
- (11) *Bottles.* Bottles for sweet or sparkling wines should be thick and heavy in case of excessive fermentation in the bottle during storage. Champagne bottles with an indentation in the base are best, but strong beer bottles may also be used. For dry wines (*i.e.* no remaining sugar) the lighter types of wine bottles are satisfactory. Use **strong**, half-pint bottles for syrups.
- (12) *Corks and stoppers.* Straight-sided corks should be used for wines and syrups, but these are often difficult to insert without a simple hand corker. Failing this, conical corks can be used instead, but make sure that the diameter half way up the cork is the same as that of the neck of the bottle. For screw stoppered bottles use the closures provided.
- (13) *Wires.* It is advisable to wire or tie the corks securely to the bottle. Thin galvanised wire is best and brewers' sundries-men supply suitable preformed loops. Alternatively,

strong string can be used; tie a small loop in the middle of a piece of string about 9 in. long and place round and just below the neck of the bottle, then tie opposite the loop. Pass the loose ends over the cork and through the loop, pull tight and tie securely.

- (14) *Funnel*. A wide necked, glass or plastic funnel is a great help for transferring wines and syrups to jars and bottles.
- (15) *Water bath or fish-kettle*. One of these is needed for sterilising the bottles of syrup, although a large preserving pan can be used. A washing boiler is useful for sterilising large numbers of bottles.

Campden Tablets

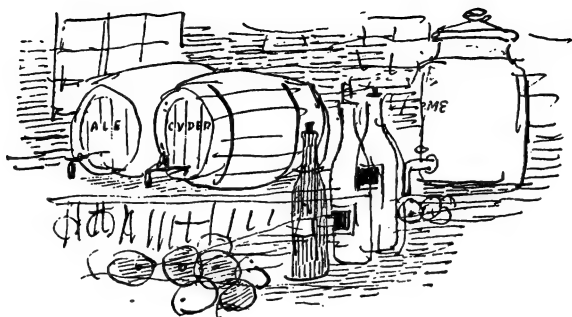
Where these are not obtainable from the chemist, the following may be substituted:

Dissolve $1\frac{1}{4}$ oz. potassium metabisulphite in 2 pints of water. 1 fluid oz. of this solution should be used per gallon instead of 2 Campden Tablets per gallon.

For sterilisation purposes use 3 fluid oz. of this solution instead of 6 Campden Tablets.

The stock solution will keep its strength for a long time if kept in a screw-stoppered bottle, and stored in a cool place.

If large quantities of wine are being made a small fruit press is very helpful. A number are manufactured, and they cost approximately £15 to £50. A simple press can be constructed by a handyman and directions for this are given in DOMESTIC PRESERVATION OF FRUIT AND VEGETABLES, BULLETIN 21 of the Ministry of Agriculture and Fisheries, published by *Her Majesty's Stationery Office*. This pamphlet also contains pictures of many of the pieces of equipment given above. Domestic juicing machines are now available but their outputs are rather limited.



Cleaning and Sterilising

Mould growth is liable to develop in jars or casks that are not used for long periods. These growths are difficult to remove and the wood of the casks becomes tainted, spoiling the flavour of any wine subsequently made in them. A few notes on cleaning and sterilising some of the equipment used in wine-making, therefore, may not come amiss.

The place where wines and syrups are made needs to be kept clean and dry. When this is the kitchen these conditions are always maintained, but if an outhouse or shed is used it is advisable to see that it is dry and clean and the walls and ceiling whitewashed at least. Similarly, the cellar or cupboard in which the bottles are stored should be dry and clean.

Three pieces of equipment need careful cleaning and sterilising as follows:

- (a) *Jars.* When empty jars are to be stored, pour into each a solution consisting of 1 pint of water, six Campden tablets

and $\frac{1}{2}$ oz. citric acid; cork down tightly and leave in a cool place. When the jar is needed again, pour this solution down an outside drain and rinse the jar thoroughly, filling it several times completely with water.

- (b) *Casks*. The cask when bought should be clean, sweet smelling and constructed of stout oak staves properly tightened with good metal hoops. The treatment given to the cask on arrival, will depend on whether it is new or second-hand. New casks should be filled with a solution of washing soda in boiling water, using $\frac{1}{4}$ lb. per gallon. Bung down, leave twenty-four hours, then drain and wash vigorously. Pour in a pint of wine or cider or a solution of $\frac{1}{2}$ oz. citric acid in 1 gallon of water. Swirl the liquid all over the inside of the barrel for half an hour, drain and then wash out thoroughly. This treatment prevents a 'woody' flavour being imparted to any subsequent fermentation. Freshly emptied port, sherry, rum, whiskey or brandy casks may be used and are often sought by wine-makers since, if used unwashed, the wine made in them is flavoured by their previous contents. White and other red wine casks may have an incrustation of 'argols' or cream of tartar round the inside which is difficult to remove.

The cask, whether new or second-hand, must now be sterilised before use. Three methods are available:

- (i) Steam the inverted cask over a fairly vigorous jet of steam for twenty minutes, then swill out with clean water when cool; *or*
- (ii) Fill the cask with boiling water, leave until luke-warm, empty and repeat; *or*
- (iii) Mix 2 fluid oz. domestic bleach with twelve pints water and pour into the cask. Roll frequently and leave for three hours. Empty, wash vigorously, pour in a little of the sterilising solution given earlier under (a) *Jars* (p. 8), roll again, drain and swill out several times with clean water.

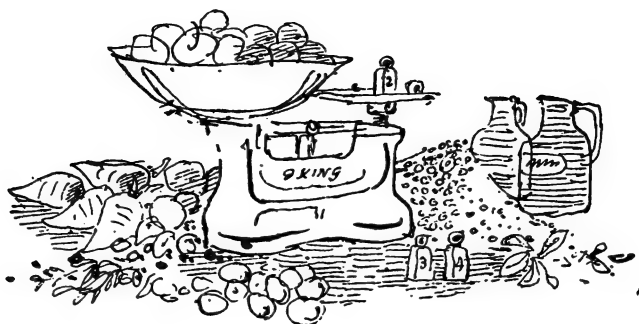
The cask is now ready to be filled with the sweetened, yeasted juice or a wine for storage.

When the cask is emptied and has to be stored, wash it out vigorously and sterilise by one of the methods given above. Pour into the cask the sterilising solution given under (a) *Jars* (p. 8), using approximately 1 quart for a five-gallon barrel. Bung down securely and store upright in a cool cellar or outhouse. Invert once each month and if the barrel shows signs of leakage cover with damp sacks or tighten up the hoops.

When the cask is once more brought into use, wash thoroughly and sterilise.

A short storage period in cask often has a beneficial effect on the flavour of the wine. However, unless great care is taken to keep the cask clean and sweet, the flavour of the wine will soon be spoiled. A more convenient container for fermenting and storing large volumes of wine is the plastic "bag" now used extensively for selling draught wines. These bags should be cleaned and sterilised as described under (a) *Jars* (p. 8).

- (c) *Corks.* Corks should be softened as well as sterilised before use. The simplest method is to keep them submerged in cold water for twenty-four hours, draining and then rinsing them in a little of the sterilising solution given for (a) *Jars*. Drain again after sterilising, but only drain and sterilise a small number of corks at a time, otherwise they will dry out again and be hard to drive in.



Wine-making

A period of fermentation is necessary in the preparation of any alcoholic beverage. This process is brought about by tiny, single-celled plants called yeasts, which attack sugary materials, converting them into ethyl alcohol and a gas, carbon dioxide.

YEAST CULTURES

Raisins and most fresh fruits have yeasts suitable for light wines on their skins, but a culture of yeast must be added if the juices are extracted by some form of heating, if other raw materials are used or more alcoholic wines required. Baker's and pressed brewer's yeast are readily available and, in general, are quite useful for wine-making. Liquid brewer's yeast or 'barm' may give a beery flavour because of the hop residues mixed with it and so should not be used for delicately flavoured wines. Wine yeast cultures give the best results since suitable strains have been selected and cultured over many years for this purpose. They give more consistent results, tend to settle well on the bottom of the fermentation vessel and give the finest aroma and

flavour. Such yeasts can now be bought from a number of commercial laboratories or from some of the County Rural Domestic Economy Instructresses who will distribute wine yeast cultures to domestic wine makers in their areas for a small fee.

The **amount of yeast** to be added is detailed on **page 26**.

FERMENTATION

The process of fermentation is a wonderful example of the powers of great numbers of minute organisms working together, each of which, on its own, would be unable to bring about the change except over an exceptionally protracted period.

Like most living creatures, yeasts work better if they are kept slightly warm, a temperature of 60° to 65° F. should be aimed at, although a few degrees on either side of these limits is unimportant. However, if the room in which the jar is kept is much colder or warmer than this, or if the temperature fluctuates widely during each twenty-four hours, the yeasts will be seriously affected and may become dormant or even die out altogether. In the home a site near an all-night fire or at the bottom of an airing cupboard is probably best. Never keep a glass jar of fermenting wine in direct sunshine, as it is liable to get overheated.

When a yeast culture is added to a sweetened juice and kept at a suitable temperature, very little happens in the first few hours. The yeasts then absorb dissolved oxygen, nitrogenous matter, mineral salts, vitamins and a little sugar from the liquid and each single living cell forms a bud which then enlarges. When it reaches the same size as the mother cell, it either breaks away or forms a bud itself. The original mother cell then buds and this process of budding continues at an accelerated pace. After a short time, the number of individual cells has increased sufficiently to be visible as a deposit on the bottom of the jar. At this stage most of the oxygen dissolved in the liquid has been utilised by the yeast and, to get further quantities, it

attacks some of the oxygen bound up in the sugar molecules, leaving ethyl alcohol and carbon dioxide. The yeast obtains less energy by this second process than it did in the early stages of growth, so that the remainder of the fermentation is carried to completion by the yeast crop already formed.

Since this book first appeared there have been many queries about the visual symptoms of fermentation. In the earlier stages froth may or may not be formed, possibly depending on the amount of pectin in the juice. The pectin appears to stabilise the gas bubbles, so that with juices high in pectin, large masses of froth are formed, whereas if little pectin is present, hardly any froth appears. The juices also contain enzymes, capable of destroying pectin, that are liberated from the ruptured cells of the fruit or vegetable. If a cold water extraction method has been used, these enzymes gradually destroy the pectin and, after a time, the gas bubbles break as they reach the surface and frothing ceases. The wine will also clear, which is why juices extracted by boiling often remain obstinately hazy and continue to form froth during most of the fermentation.

The process of fermentation is seen by the evolution of bubbles of carbon dioxide. With juices low in nutrients or with a poor yeast, the gas bubbles may be minute and not easily visible, whereas they will be seen readily with a juice rich in nutrients to which a very active yeast culture has been added. The period of fermentation during which gas bubbles appear cannot be stated with any exactitude. It may vary from two weeks to several months; again this depends on the material. Produce from well-manured gardens or orchards will always give juices that ferment in a reasonable period. Occasionally the wine does not ferment completely and remains very sweet, even though no more than 3 lb. of sugar was added to the juice originally. It is essential to re-start the fermentation, otherwise the wine will have insufficient alcohol and be thin in flavour. Fermentation will recommence if the wine is aerated for a short while, followed by the addition of nutrients and possibly fresh yeast. The wine is poured into a bowl and **one** of the

following mixtures stirred in vigorously: (a) $\frac{1}{2}$ oz. B.P. quality ammonium sulphate and 1 oz. malt or yeast extract per 10 gallons **or** (b) 1 fl. oz. per 1 gallon of wine of a nutrient mixture, made by dissolving 1 oz. ammonium sulphate and $\frac{1}{10}$ of a gramme ampoule of Vitamin B₁ (also known as aneurine or thiamine) in 1 pint of water. The mixture can be kept in a refrigerator and is very convenient to handle. The contents of the bowl can be returned to the jar after the addition of nutrients and possibly a fresh supply of yeast, or $\frac{1}{2}$ pint of another wine in vigorous fermentation. Re-insert the air lock. The wine should start to ferment in a few days and continue until all the sugar has disappeared.

STORAGE

The fully fermented wine is not usually very attractive; it may be hazy, sometimes sour (**not** vinegary) and without the smooth pleasant flavour of a good wine. It is as well to consider at this stage what type of wine is required. The possibilities are as follows: sweet or dry, still or sparkling. Sweet wines are drunk with the dessert, or used for offering hospitality between meals. Such wines need further treatment before storage and directions for making these and also sparkling wines are given in the recipe chapters. Still dry wines are meant for drinking either just before or during the course of a meal. A small glassful of dry wine on such occasions improves the appetite and makes the simplest meal more attractive. Dry wines can also be used in cooking and suitable recipes are given in most modern cookery books.

If the wine tastes too sour, due to the original raw material being even more acid than allowed for in the recipes, it can be ameliorated by diluting with a proportion of sweetened water (3 lb. of sugar in a gallon) and re-fermenting; this is necessary to avoid dilution of the alcohol. It is not possible to give the exact degree of dilution required, but do not use more than equal volumes of wine and sweetened water, since a wine that has

been diluted excessively will be insipid and have lost much of its characteristic flavour.

Still dry wines and sweet wines, after any de-acidification or stabilisation treatments, must be stored to allow clearing to take place. The jar is taken to a cold room to encourage some of the yeast to settle. After about fourteen days the wine is syphoned into a clean jar which is filled and care must be taken not to disturb the yeast deposit. (If surplus juice has been fermented in a bottle it may also be decanted and used for filling the storage jar.) A cork is inserted, the top waxed over and the jar stored in the coldest room available; at least six months is advisable. Again syphon off from any deposit, bottle, force in soaked and sterilised corks and wire or tie down. The bottles should be stored either on their sides or else the tops may be dipped in just molten paraffin wax and stored upright. With either method, the bottles should be kept in a cool dark cupboard or cellar. Sparkling bottled wines will need slightly different storage conditions as indicated in the recipe chapters. Bottled wines should be stored at least another three to six months before sampling if they are to achieve their best flavours, although they are fairly palatable if drunk before then. Sweet wines, especially if rather alcoholic, improve with several years storage. A good wine will keep many years if it has been properly made, well corked and kept cool. Storage can never improve an ill-flavoured or tainted wine.

CLARIFICATION

Sometimes a wine will fail to clear satisfactorily during storage before bottling, the possible causes being as follows:

- (a) Presence of pectin or gummy materials derived originally from raw material that contained insufficient pectin-destroying enzymes or where the juice was extracted by boiling and the enzymes killed. If a jelly-like clot or strings are formed on the addition of three or four fluid oz. of methylated spirits to one fluid oz. of the wine, excess pectin

is responsible for the haze. (The sample should be thrown away after the test, of course.) The remaining wine should be treated with a commercial pectin-destroying enzyme (e.g. PECTOZYME, sold in 5 lb. tins by A.B.M. Industrial Products Ltd., Woodley, Stockport, Cheshire). Smaller quantities can be purchased from most wine-makers' sundriesmen. In $\frac{1}{2}$ pint of wine suspend $\frac{1}{2}$ oz. of Pectozyme for each gallon to be treated. Keep warm (70–80° F.) for four hours, stirring at intervals; strain through muslin and add the liquid to the bulk of wine. Keep the wine at 60–70° F. for several days. If the wine is not clear, mix in a suitable filter aid, e.g. Supercel or filtering asbestos, and either allow to settle or pour through a jelly bag, filter paper or raised pile milk cloth. If fairly large volumes of wine need to be filtered, it might be worth while buying a small glazed earthenware filter and glass suction pump to speed the rate of filtration; it must always be used in conjunction with filter aid.

- (b) Presence of non-depositing yeasts. A sample treated with methylated spirits does not form a jelly-like clot and the haze can be removed easily with filter aid as detailed under (a).
- (c) Presence of lactic acid bacteria. Again does not form a clot with methylated spirits; the bulk of wine has a silky sheen when swirled. This haze is difficult to remove by filtration and recourse may be made to fining methods. In any case the bacteria should be killed first by dissolving three crushed-up Campden tablets in each gallon of wine. Fining materials should be used cautiously since, in inexperienced hands, an excess of them may be added and the haze stabilised. *Hence if there is only a slight bacterial haze, treat with Campden tablets and leave well alone.* For more exacting wine-makers the following directions may be used as a guide. Isinglass (only suitable for low acid wines), use $\frac{1}{4}$ oz. for each ten gallons of wine. The thin strips should be kept for

twenty-four hours in a little of the wine, then rubbed through a hair sieve and added to the main bulk with vigorous stirring. The wine should clear after ten to fourteen days and can be syphoned off from the deposit. Brewers' sundriesmen sell a ready-made 'solution' of isinglass that is more convenient to handle. A similar method uses the white of an egg which is sufficient for fifteen to twenty gallons. Whisk the egg white into a froth and stir briskly into the wine which should clear within the same period. For fining with gelatin and tannin, dissolve $\frac{1}{2}$ oz. of grape tannin or B.P. quality tannic acid in $\frac{1}{2}$ pint of water and $\frac{1}{2}$ oz. edible grade gelatin (leaf or powder) in another $\frac{1}{2}$ pint boiling water, stirring vigorously until dissolved. To each gallon of hazy wine add 1 fluid oz. of the tannin solution, mix thoroughly and then add 1 fluid oz. of the gelatin solution. Leave 24-48 hours in a cool place and syphon the clear wine away from the copious deposit. The stock solutions of tannin and gelatin do not keep well, so that it is more economical to treat all the hazy wines at one time.

- (d) Haze in spiced wines. Due to excess spice, leaving it too long in the wine, or to the use of powdered spice. Does not clot with methylated spirits, does not filter easily, does not form a silky sheen when the contents of the jar are swirled, but is characterised by a faint general opalescence. May disappear on fining but this cannot be guaranteed; moral, use less spice next time and never the powdered form.

If hazes form in a bottle of wine that was clear when bottled, it may be due to one of the following causes:

- (e) Yeast growth in sweet wines. Characterised by gas pressure, slight haze and a cream or fawny-brown deposit. Decant the wine into a jar and allow to re-ferment. Stabilise as directed in para. 5, p. 23.
- (f) Growth of vinegar bacteria in low alcohol wines. Characterised by 'floaters' consisting of long chains of bacterial

cells. Due to excess air space in the bottle, faulty corks or storing bottles upright with unwaxed tops. These wines should be consumed immediately or, if too vinegary, allow the process to go to completion as detailed on pp. 119-121.

- (g) Growth of lactic acid bacteria. Characterised by a silky sheen when the bottle is swirled. Empty out and treat as described under (c). Caused by using low acid raw materials that included a proportion of rotted specimens. If a too vigorous growth of bacteria has taken place the wine may be unpleasant and have to be thrown away.



Disorders

In the world around us nature preserves a marvellous balance, so that, when left undisturbed, dead animals and plants are broken down to carbon dioxide, minerals, nitrogen, etc. Apart from insects and other scavengers, this decomposition is done by innumerable minute organisms which are mainly either bacteria, moulds or yeasts. The organisms we are concerned with in this book are fermenting yeasts that attack sugary liquids, turning them into alcohol and carbon dioxide, vinegar bacteria that attack the alcohol and turn it into vinegar and eventually into carbon dioxide and water. Then there are film yeasts that can grow on wines and turn the alcohol directly into carbon dioxide and water. Some moulds can break down damaged fruit to its simplest components, while others grow on the surface of wines and syrups and so on. Thus, the successful wine- or syrup-maker must intervene, as it were, in this

ceaseless process of decomposition and control the organisms if a potable liquid is to be produced. The simplest means of control are (a) exclusion of air, (b) heat or cold, (c) preservatives—of which sulphur dioxide or benzoic acid are the only ones permitted in food-stuffs, (d) acidity, (e) sugar, (f) alcohol. If we now consider the preparation of wines, liqueurs and syrups, it will be seen how these control methods are used.

A wine is made by adding a yeast culture to a sweetened fruit or vegetable extract. There are, of course, other organisms present derived from the raw material and the unwanted ones of this group must be suppressed. The soil organisms, other than yeasts, moulds, lactic and acetic bacteria, are killed immediately by the natural acidity of the fruit juice. Tartaric or citric acid is added to extracts of vegetables, flowers, herbs and cereals for this purpose since these are normally deficient in acid. The yeast culture, being in the highest concentration and in a vigorous condition, attacks the sugar, forming alcohol and carbon dioxide. This last process is called fermentation and is essentially life without air; it is this process which must be encouraged in wine-making. Hence the wine is fermented in a jar or cask under an air lock, allowing carbon dioxide to escape but keeping air out. Thus organisms needing air, such as moulds, film yeasts and vinegar bacteria, are prevented from developing. There are, however, two groups of lactic bacteria likely to be present in the fermenting wine, since these also can live without air. These organisms are oiliness bacteria and malo-lactic bacteria. The first group alter the appearance of the wine and are discussed under *Treatment of Disordered Wines and Syrups* (p. 21), while the second group reduce the acidity of grape wines and are referred to in the chapter on *Grape Wines* (p. 46).

When making liqueurs the micro-organisms are suppressed by adding a high concentration of alcohol in the form of gin, whiskey, rum, brandy or vodka. A large amount of sugar is sometimes also added to reinforce this preservative effect.

Syrups must similarly be free of micro-organisms and are

preserved by using a high concentration of sugar, with or without pasteurisation in the bottle. Syrups can also be preserved chemically, in the same way as fruit squashes, by using the permitted amounts of sulphur dioxide or benzoic acid, but such methods are not given in this book as these chemicals do impart some unwanted flavour.

Spoilage in flavoured vinegars is prevented by the presence of acetic acid and sugar. If improperly prepared a vinegar 'mother' forms and in this case the bottles should be pasteurised in the same way as for syrups and cordials (p. 103).

TREATMENT OF DISORDERED WINES AND SYRUPS

Having considered the methods of controlling the growth of micro-organisms, it is now possible to give appropriate curative measures should undesirable organisms develop due to unforeseen circumstances. It should be emphasised that prevention is always better than cure, since curative measures do not always fully restore the original flavour. Disorders can be grouped as follows:

- | | |
|---------------------------|-------------------------------------|
| Microbiological Disorders | (1) Moulds |
| | (2) Film yeasts |
| | (3) Vinegar bacteria |
| | (4) Oiliness bacteria |
| | (5) Yeast spoilage of syrups |
| Chemical Disorders | (6) Metallic flavours and darkening |
| | (7) Browning |

(1) Moulds

Most moulds can exist either in the form of fine hair-like threads called *mycelia* or else as fine powdery particles, often coloured, called *spores*. They need moisture, warmth and some shade for their development. Hence the raw materials for wine- or syrup-making should be picked on a dry, sunny day and be free from existing mycelia. Any utensils should be sterilised

with boiling water, dry heat or some chemical treatment. Air must be kept away from the wines by keeping the containers full, using air locks for the fermentations and sterilised corks, waxed over for storage, or covering the surface with a layer of olive oil. Once mould growth develops on the raw material, wine or syrup, an unpleasant flavour is imparted which is impossible to remove. The contaminated material should be thrown away.

(2) Vinegar bacteria

These minute organisms, too small to be seen individually with the naked eye, appear as a jelly-like mass on the surface of still, low alcohol liquids exposed to air. The alcohol is converted to vinegar and if this has gone as far as to give a taint, the whole of the wine should be deliberately converted into vinegar, as detailed in the chapter on *Vinegars and Cough Cures* (p. 119). If, however, the vinegary flavour is only just perceptible, add two Campden tablets to each gallon of wine and next day mix with some freshly crushed raw material from which the wine was made originally, *i.e.* for blackberry wine use crushed blackberries. Use 3 lb. pulp for each gallon, leave overnight, strain, add yeast and re-ferment.

The same precautions detailed under moulds should also be observed to prevent the growth of the bacteria.

(3) Film yeasts

These unwanted yeasts form a thin, easily broken film on the surface of wines. They convert alcohol into carbon dioxide and water and are excluded by using the precautions detailed under moulds. Should they develop because of unavoidable circumstances, cover the surface with olive oil or add two Campden tablets per gallon.

(4) Oiliness or ropiness

Some old countrymen describe this disorder by saying that the wine 'has gone a bit thick-like'. The physical appearance

is quite unprepossessing, being viscous or oily, although the flavour is not usually affected to any extent. The disordered wine should be poured into an enamelled bucket or bowl and stirred vigorously with a clean wooden paddle until the oily consistency has disappeared. Two Campden tablets are added to each gallon and the wine carefully syphoned into clean bottles, after allowing any sediment to settle. The bottles are then corked, wired and stored on their sides in a cellar as usual. In obstinate cases it may be necessary to fine or filter the affected wine and methods for doing this were given in the previous chapter (pp. 15-18). The bowl, paddle and any funnel should be sterilised afterwards or the infection may be passed on to other wines.

(5) Yeast spoilage

Fermenting yeasts which are needed for wine-making are very undesirable in syrups. If fermentation commences in a bottle of syrup, as seen by an excessive deposit, haziness in the liquid and corks straining against their wires, open all the affected bottles immediately and allow to ferment in a jar protected with an air lock, as given for the appropriate wine. The bottles of fermenting syrup should not be left corked as the bottles will explode, with possible damage to anyone unfortunate enough to be standing near.

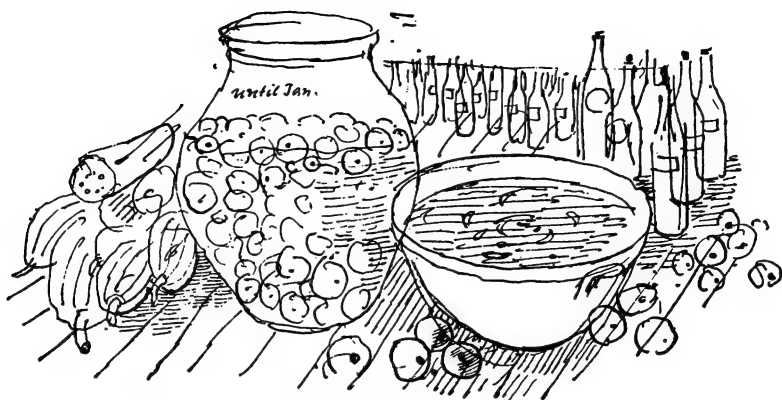
(6) Metallic taints and darkening

When making any of the drinks given in this book the following metals must be avoided: iron, copper, zinc, lead, antimony and brass. They all dissolve slowly in acid liquids, giving unpleasant flavoured salts, some of which may be poisonous in high concentrations. Iron and copper salts, the two commonest contaminants, besides imparting a roughness or astringency to the drink, also cause light coloured wines to darken when poured into a glass and so exposed to air. This darkening can be prevented by adding 1 oz. citric acid to each 10 gallons of wine, but it will not, unfortunately, improve its flavour.

(7) Browning

A light coloured wine made from seriously over-ripe or partially rotted fruit will almost certainly turn dark brown when poured into a glass. This is due to a reaction between oxygen and the natural tannins of the fruit. It can be prevented by adding $\frac{1}{2}$ Campden tablet to each quart of wine. It is often difficult to tell whether darkening is due to this fault or metal contamination. It is probably better to do preliminary tests with the wine, adding a trace of a citric acid solution to one glass and a trace of a solution of Campden tablets to the other. Wine is added to each glass and left overnight. The treatment preventing darkening is obviously the one to use with the bulk of wine.

This catalogue of horrors may sound a little unnerving to the hopeful wine-maker, but it should be considered in the same light as a book on first aid. Provided the methods detailed in the recipes are adhered to, there should be no need for the wine or syrup to undergo any of these disorders.



Fruit Wines

When most fruits are crushed and then pressed through muslin the yields of juice are extremely small. This is because they contain a mucilaginous material called pectin which retains the juice in the individual fruit cells. It is necessary either:

- (a) to add a commercial pectin-destroying enzyme such as Pectozyme (see p. 16 for supplier), *or*
- (b) to break down the tissues by heating the fruit to 160° F. for a short time before pressing; *or*
- (c) to soak the crushed fruit in warm water to allow the natural fruit enzymes to act on the pectin.

This latter method is the one normally used in the home for extracting the fruit juices. Some recipes recommend boiling the raw material but this will kill the natural fruit enzymes, leaving a hazy wine that may need treating afterwards, as described in section (a) of Clarification (p. 15). **When it is necessary to**

boil the fruit in an open pan with water, note should be taken of the volume before heating and made up to this quantity again at the end of the boiling with extra water. Although one gallon of water is used initially in each recipe, the addition of 3 lb. of sugar will increase this by another 1½ pints. In the majority of the recipes the wine-maker is told to add all the sugar in one batch. If extra time can be given to the wine-making, more certain results can be obtained by adding only one-third of the sugar recommended in the recipe. When the juice is in active fermentation add a second one-third and the last one-third approximately two weeks later. Care should be exercised when making spiced wines. Use the form of spice recommended, suspend in the wine in a muslin bag for the correct time and **never** use powdered spices. Heavily spiced wines should always be drunk sweet and not as dry wines.

In a few recipes no yeast addition is made since there is enough in the fruits themselves.

Where there is insufficient yeast present or it has been destroyed by heat treatments to extract the juice, some form of yeast must be added. A wine yeast is best, adding the amount recommended by the distributor (pp. 11-12), or half a pint of strongly fermenting wine, previously inoculated with such a yeast. Alternatively, one teaspoonful of compressed baker's or brewer's yeast may be added to each gallon. Cream the yeast in a little of the juice before adding to the main bulk. If only liquid brewer's yeast or 'barm' is available, then add one tablespoonful of this to each gallon of juice.

- (1) The method for preparing and yeasting the extract is given with each recipe. The sweetened, yeasted liquid is poured into a glass jar or clean cask until it is filled. Any surplus is kept in a bottle for topping up the main bulk during fermentation. The jar or cask is stood on a tray and kept in a warm room. In a short time fermentation starts and froth

pours over the side of the container into the tray. When froth no longer forms, the tray is removed, the jar cleaned and an air lock or loosely fitting cork inserted.

- (2) As soon as the fermentation is complete, *i.e.* gas bubbles are no longer formed, the wine is treated as follows, depending on the type of wine required.

(3) Dry, Still Wines

Place the jar in a cool room for fourteen days, then syphon or 'rack' the partially clarified liquid with a rubber tube into a clean jar, taking care not to disturb the yeast deposit. Make sure the second jar (storage jar) is completely full when the cork is inserted, wax the top of the cork and store in a cold cellar for six months. Again rack off the clear liquid (it can also be filtered if required), bottle and cork firmly. Store the bottles on their sides for at least another six months before sampling. Longer storage improves the wine.

(4) Dry, Sparkling Wines (use heavy glass bottles)

Two alternative methods of preparation are possible:

- (a) the jar of fermented wine from (2) is kept in a cool cellar for fourteen days and then filtered or passed through a jelly bag to clear it. The clarified wine is bottled and before corking two large chopped raisins, or a lump of sugar, are added to each bottle. Cork, wire or tie down and store the bottles on their sides in the cellar for six months, when the wine should be adequately carbonated; *or*
- (b) the jar of fermented wine from (2) is kept as cold as possible for fourteen days when it is syphoned or 'racked' from the yeast deposit. For each gallon of wine dissolve $\frac{1}{2}$ lb. sugar in $\frac{1}{2}$ pint of boiling water, when cold add to the wine, mix well, bottle and cork. Tie or wire the corks tightly and store on their sides in the cellar for at least six months.

(5) Sweet, Still Wines

Again two alternative methods of preparation are possible:

- (a) instead of using the amount of sugar specified in the recipe use 6 lb. Allow the wine to ferment as long as it will, then treat as detailed in paragraph (3). The disadvantage of this method is that the sweetness of the final wine cannot be controlled and may vary from sickly sweet to slightly sweet. Its only merits are that it involves a minimum amount of effort and the wine will not ferment in the bottle; *or*
- (b) to each gallon of fermented wine made as in paragraph (2) *i.e.* without removing the yeast, add $\frac{3}{4}$ lb. sugar, stir until dissolved, re-insert the air lock and allow to ferment in a warm room once more. When gas is no longer formed, taste the wine and, if it is not sweet, add another $\frac{3}{4}$ lb. sugar and re-ferment. This should be repeated until the sugar remains unfermented. The wine should then be treated as detailed in paragraph (3) as also should wines which do not ferment after the first sweetening. Do not add nutrients to these wines after the first fermentation.

(6) Sweet, Sparkling Wines (use heavy glass bottles)

This type of wine is most difficult to prepare without elaborate machinery, since it is difficult to strike a proper balance between the sugar content of the wine and the amount of carbon dioxide formed. The following method is probably the safest and easiest way of making such wines. The fermentation of the juice should be started in September or October, and when it is completed, remove the jar to a cold room for fourteen days. Syphon the wine into a series of small clean jars, make sure they are completely full when corked, wax over the tops and store in a cold cellar. The correct time to bottle must be determined by trial, as follows: at the beginning of February sweeten one of the

jars at the rate of $\frac{1}{2}$ lb. sugar per gallon of wine. Three-quarters fill a pint champagne bottle with this sweetened wine, cork and wire it strongly, then keep it in a warm room for fourteen days. If only a slight yeast deposit forms together with a reasonable amount of gas all the wine may be similarly sweetened and bottled, but in this case the air space left in each bottle should be very small. If, however, a heavy deposit forms in the original bottle and the cork strains against the retaining wires, it is unsafe to bottle the rest. In this case repeat with a further bottle of sweetened wine at the beginning and middle of each succeeding month, until the wine can be carbonated safely. Then sweeten the remaining wine, bottle, cork, wire and store the bottles on their sides in the cellar for at least six months before sampling.

APPLE WINE

6 lb. windfall apples
white sugar

1 gallon water
yeast

Cut the apples into small pieces, put into a bowl and add the yeast and cold water. Leave four or five days, stirring vigorously several times a day. Strain the juice, press out the residue and add the extract to the juice. To every gallon add 3 lb. of white sugar. Continue as directed in paragraphs 1 to 6 (pp. 26-29).

Crab apples can be used instead of windfalls and demerara sugar instead of white.

APPLE WINE

SPICED

6 lb. windfall apples
3 lb. white sugar
1 lemon rind
yeast

1 gallon water
 $\frac{1}{2}$ lb. raisins
 $\frac{1}{2}$ oz. root ginger

Cut the apples into very thin slices, drop into a bowl, pour half a gallon of boiling water over them and leave two days, stirring the mixture at intervals. Squeeze out in a thick cloth and pour the liquid into a jar; return the pulp to the bowl. Boil the remaining $\frac{1}{2}$ gallon of water for $\frac{1}{2}$ hour with the sugar, lemon rind and ginger, adding more water if necessary to restore the original volume. While still boiling pour over the pulp, leave a further two days, stir and mash with a wooden spoon now and again. Squeeze out through a thick cloth and add this second extract to the first; discard the pulp. Add the yeast and cut-up raisins to the combined extract and continue as directed in paragraphs 1 to 6.

Substituting pears for apples, reducing the sugar to 2 lb., and increasing the raisins to 2 lb., makes a delightful wine.

APPLE WINE

FROM CIDER

1 gallon draught cider	2 lb. white sugar
1 stick cinnamon	1 oz. root ginger
1 lb. raisins	yeast (optional)

Dissolve the sugar in the cider and add the spices in a muslin bag. Let it stand for four days in a bowl, then remove the bag, pour the liquid into a jar and add the cut-up raisins. Continue as directed in paragraphs 1 to 6. Yeast need not be added in this recipe unless fermentation is unduly slow.

APRICOT WINE

1 lb. dried apricots	1 gallon water
1½ lb. white sugar	yeast
2 Campden tablets	

Cut the apricots into small pieces, pour over them the boiling water, leave until cool and then add the crushed Campden tablets. Cover the bowl with a thick cloth, stirring twice daily for three days. Add the yeast, re-cover with the cloth and leave another week or until fermentation starts. Strain through a hair sieve, dissolve the sugar in the liquid and pour into a jar. Continue as directed in paragraphs 1 to 6.

¼ oz. Pectozyme added with the Campden tablets will prevent jelling.

BLACKBERRY WINE I

Cultivated blackberries	white sugar
Pectozyme	Campden tablets
yeast (optional)	

Crush the ripe fruit in a bowl, add ¼ oz. Pectozyme for every 8 lb. of berries, mix thoroughly and cover with a cloth. Give the mixture a stir several times for the next two or three days. Strain through muslin and squeeze out any juice left in the

pulp. Dissolve 3 Campden tablets in each gallon of juice, pour into a jar and leave a further two days. Add 3 lb. of sugar for each gallon followed by the yeast. Make into a sweet wine as directed in paragraphs 1, 2 and 5. This recipe gives a deep red, rich flavoured wine that clears very readily even during fermentation.

BLACKBERRY WINE II

3 lb. blackberries	1 gallon water
4 lb. white sugar	yeast

Wash the fruit well, drain, and then place in a basin and pour on the boiling water. Allow to stand two days, stirring well twice a day. Strain through muslin, dissolve the sugar in the juice and add the yeast. Continue as directed in paragraphs 1 to 6.

If made as directed in paragraphs 1 to 3 this recipe gives a light, dry, rosé type of wine which is very refreshing to drink during a meal.

BLACKBERRY WINE

SPICED

4 lb. blackberries	1 gallon water
4 lb. white sugar	2 lemons
$\frac{1}{2}$ oz. root ginger	6 cloves
1 stick cinnamon	yeast

Put the lemon rind, bruised ginger and the other spices in a muslin bag and suspend in the water. Add the sugar to the water and boil for thirty minutes, skimming the surface if any scum is formed and replacing any water boiled away. Remove the bag and while the liquid is warm, pour over the ripe, dry berries previously mashed in a bowl. When cool, add the yeast and lemon juice to the mixture and allow to stand forty-eight hours, stirring twice daily. Squeeze through muslin and continue as directed in paragraphs 1 to 6.

BLACKCURRANT WINE I

2 lb. blackcurrants	1 gallon water
4 lb. white sugar	

Crush the fruit in a bowl and add the cold water. Allow to stand five days, stirring daily. Strain through muslin, squeezing the residue, and dissolve the sugar in the juice.

An alternative method is to force the fruit through a sieve into the water, add the sugar and stir until dissolved.

After either of these methods continue as directed in paragraphs I to 6. No yeast is needed for this method.

BLACKCURRANT WINE II

2 lb. blackcurrants	1 gallon water
4 lb. white sugar	yeast

Place the crushed fruit with one quart of the water in a double saucepan and simmer, stirring the fruit occasionally until the juice begins to run. Alternatively, put the fruit and one quart of the water in a bowl and stand this in a saucepan or pan of water in place of the double saucepan. Squeeze through muslin into a bowl and then add the pulp to three quarts of water. Simmer the pulp and water for a few minutes and again squeeze through muslin—adding more water to restore the original volume—and again squeeze through muslin. Dissolve the sugar in the combined juices, and when cool add the yeast and continue as directed in paragraphs I to 6.

Blackcurrants contain large amounts of vitamin C and this is better retained in blackcurrant syrup than it is in the wine.

BULLACE WINE

4 lb. bullaces	1 gallon water
3 lb. demerara sugar	$\frac{1}{2}$ lb. raisins
yeast	

Bruise the fruit and pour on boiling water. Cover with a cloth and allow to stand for five days, stirring several times a day.

Strain off through muslin, squeezing well and dissolve the sugar in the juice. Put the cut-up raisins in a jar and add the yeast and the sweetened juice. Continue as directed in paragraphs 1 to 6.

CHERRY WINE I

10 lb. *sweet cherries*
yeast

2 lb. *white sugar*

Wash, drain and chop the ripe fruit and heat in the centre compartment of a double saucepan for one hour. Alternatively, put the chopped fruit in a bowl and stand in a pan of water and heat until the juice begins to run. Press through a fine cloth and squeeze as hard as possible. This method gives a brilliant red juice. Dissolve the sugar in the juice and when cool add the yeast and proceed as directed in paragraphs 1 to 6.

CHERRY WINE II

5 lb. *sour or morello cherries*
4½ lb. *white sugar*

1 gallon *water*
yeast

Chop up the clean, dry fruit without smashing the stones. Steep in a bowl with the cold water for forty-eight hours. Squeeze through a heavy cloth, dissolve the sugar in the juice and add the yeast. Proceed as directed in paragraphs 1 to 6. For a dry wine with a rich flavour use 3 lb. demerara sugar in place of the amount given in the recipe.

Alternatively, a blend of 4 lb. of sweet and 2 lb. sour cherries may be used with one gallon water and 3 lb. of sugar in this latter method.

NOTE: Wine made by method II does not possess an intense colour but has the delicate flavour of the fresh juice. To combine the advantages of cold and hot pressed juices blend two parts of the former with one of the latter. Alternatively, the juices can be fermented separately and blended as wines.

Avoid under-ripe, mouldy or badly damaged fruit, although split cherries can be used.

CHERRY WINE III

<i>2 lb. morello cherries</i>	<i>1 quart old ale</i>
<i>4 lb. sugar</i>	<i>3 quarts water</i>

Prick the cherries with a needle before placing with the other ingredients in a jug, cover with a thick cloth and leave in a warm room until fermentation ceases—usually about two weeks. Strain and bottle. This is a non-sparkling drink and improves with keeping for several months. The strained cherries can be used in pies.

DAMSON WINE

<i>4 lb. damsons</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>yeast</i>

Select ripe sound fruit, remove the stalks, wash and drain. Place in a bowl and bruise well with a wooden spoon. Add the boiling water and leave four days, stirring each day. Squeeze through muslin, dissolve the sugar in the juice, add the yeast and proceed as directed in paragraphs 1 to 6.

DAMSON WINE

SPICED

<i>4 lb. damsons</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>$\frac{1}{2}$ oz. root ginger</i>
<i>2 lemons</i>	<i>yeast</i>

Place the damsons in a bowl, bruise and add the cold water, bruised ginger, lemon juice and rind (no white pith). Add the yeast, leave covered with a thick cloth in a warm room for ten days, stirring daily, and then strain through muslin. Dissolve the sugar in the juice and proceed as directed in paragraphs 1 to 6.

ELDERBERRY WINE

<i>2 lb. elderberries</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>yeast</i>
<i>2 oranges</i>	

Remove the berries from the stalks with a fork before weighing, then bruise in a bowl. Add the orange juice and grated rinds, pour on the boiling water and allow to cool before adding the yeast. Leave two days, stirring daily. Strain through muslin, dissolve the sugar in the juice and proceed as directed in paragraphs 1 to 6.

Alternatively, 1 lb. of damsons and 2 lb. elderberries can be used instead. The wine from this is said to resemble Burgundy.

ELDERBERRY WINE

SPICED

<i>2 lb. elderberries</i>	<i>1 gallon water</i>
<i>3 lb. demerara sugar</i>	<i>½ lb. raisins</i>
<i>¼ oz. cloves</i>	<i>½ oz. root ginger</i>
<i>1 small stick cinnamon</i>	<i>1 lemon</i>
<i>yeast</i>	

Weigh fruit without the stalks, mash in a bowl and pour on boiling water. Leave two days, stirring daily, then strain through muslin. Slice the lemon, bruise the ginger and tie in a piece of muslin with the cinnamon and cloves. Boil the bag in a pint of the juice for twenty minutes. Lift out the bag and when the juice is cool add it to the main bulk. Dissolve the sugar in this, add the yeast and chopped raisins and continue as directed in paragraphs 1 to 6.

This wine is said to be very pleasant as a drink for winter evenings and is then usually drunk warm.

ELDERBERRY AND RAISIN WINE

2 lb. elderberries

1 gallon water

6 lb. *Smyrna* raisins

yeast

Chop the raisins, place in a jar with the yeast and pour in the cold water. Insert an air lock or loosely fitting cork and leave fourteen days, shaking the jar each day. At the end of this period remove the stalks from 2 lb. of elderberries and place the fruit in Kilner jars. Heat in an oven at 250° F. or *Regulo* $\frac{1}{4}$ for fifteen minutes or until the juice runs from the fruit. Strain through a sieve and add one pint of cooled juice to each gallon of the strained raisin juice. Proceed as directed in paragraphs 1 to 6.

This tastes best if made as a sweet, still wine.

GOOSEBERRY WINE

2 lb. gooseberries

3 lb. white sugar

1 gallon water

yeast

Pick the ripe gooseberries on a dry day, choosing large and juicy fruits. Put in a bowl and pour on the boiling water. Allow to stand two days, stirring twice a day. Strain the liquid through muslin, crush the fruit with the flat end of a bottle and squeeze in the muslin. Dissolve the sugar in the combined extracts, add the yeast and continue as directed in Paragraphs 1 to 6.

In another recipe, twelve chopped grape leaves are mixed with the mashed fruit. Other recipes recommend adding a quarter pint of gin or brandy to the wine at the time of storage, but this is not essential.

A very pleasant wine can be made from the red varieties of gooseberry, only picking the fruit when it is almost ready to fall. Follow directions given for making a sweet wine.

GRAPEFRUIT WINE

7 grapefruit	1 gallon water
3½ lb. white sugar	yeast

Grate the scrubbed rinds into a bowl, add the juice, cold water and yeast. Leave for five days, stirring twice each day, then strain through several layers of muslin. Dissolve the sugar in the juice and continue as directed in paragraphs 1 to 6.

HAWTHORNBERRY WINE

3 lb. hawthornberries	1 gallon water
3 lb. white sugar	2 lemons
yeast	

Crush the berries in a bowl, add the lemon juice and peel (no white pith) and pour on the cold water. Leave five days, stirring daily, then strain and dissolve the sugar in the juice. Add the yeast and proceed as directed in paragraphs 1 to 6.

HAWTHORNBERRY WINE

SPICED

3 lb. hawthornberries	1 gallon water
½ oz. root ginger	3 lb. demerara sugar
½ lb. raisins	yeast

Boil the berries in the water for fifteen minutes, strain and add the sugar and bruised ginger to the liquid. Boil again for another fifteen minutes, removing any scum that forms and adding more water to restore the original volume. When cool, add the yeast and pour into a jar followed by the chopped raisins. Proceed as directed in paragraphs 1 to 6.

LEMON WINE

5 small lemons
4 lb. white sugar

1 gallon water
yeast

Place the thinly peeled rind, avoiding the white pith, in a jug. Dissolve the sugar in the warm water and pour the hot syrup over the lemon peels. When cool, add the yeast and the strained lemon juice. Allow to stand forty-eight hours, stirring several times each day. Strain and proceed as directed in paragraphs 1 to 6.

LOGANBERRY WINE

4 lb. loganberries
4 lb. white sugar

1 gallon water
yeast

Prepare as directed for Blackberry Wine I or II (pp. 31, 32).

MIXED FRUIT WINE I

1 lb. blackcurrants
1 lb. whitecurrants
1 lb. raspberries
white sugar

1 lb. redcurrants
1 lb. cherries
1 gallon water

Stalk the currants and stone the cherries. Mix the fruit in a bowl and bruise well. Add cold water and leave three days, stirring frequently. Strain through muslin, squeezing the pulp as dry as possible. Measure the juice and to each gallon add 3 lb. of sugar. Stir until dissolved and proceed as directed in paragraphs 1 to 6.

MIXED FRUIT WINE II

1 lb. raspberries	1 lb. strawberries
1 lb. black cherries	1 lb. gooseberries
1 lb. blackcurrants	1 lb. whitecurrants
1 lb. redcurrants	2 gallons water
white sugar	

Bruise the gooseberries in a bowl. Remove the stalks from the currants, strawberries and raspberries, mash and add to the gooseberries. Stone the cherries, cut up the fruit and also put in the bowl. Add the cold water and leave two days, stirring twice daily. Strain through muslin and measure the juice. To each gallon add 3 lb. of white sugar and stir until dissolved. Proceed as directed in paragraphs I to 6. A gill of brandy is sometimes added to each gallon of wine at the time of storage, but this is not essential.

MULBERRY WINE

Prepare as directed for Blackberry Wine I or II (pp. 31-32).

ORANGE WINE I

12 sweet oranges	1 gallon water
3½ lb. white sugar	yeast

Scrub six of the oranges clean and peel thinly, avoiding the pith. Put the rind in a pan and add a quart of boiling water. Allow to stand one day and then pour off the water into a bowl containing three quarts of cold water and the sugar. Halve all the oranges and squeeze the juice into the bowl. Stir until the sugar dissolves and add the yeast. Proceed as directed in paragraphs I to 6.

Seville oranges are often used, but a slightly bitter wine is produced. If this is not liked use equal parts of Seville and sweet oranges. Alternatively, twelve sweet oranges and one lemon can be used.

ORANGE WINE II

12 *sweet oranges*
3 *lb. white sugar*
yeast

1 *gallon water*
1 *lb. large raisins*

Peel six of the oranges and put the peel in a warm oven to brown. When well browned, remove from the oven and pour one quart of boiling water over them. Allow to cool and pour the liquid into a jug. Add the juice of the twelve oranges, three quarts of cold water and the cut-up raisins. Stir in the sugar until dissolved and add the yeast. Leave for eight days, strain and proceed as directed in paragraphs 1 to 6.

PLUM WINE

4 *lb. plums*
4 *lb. white sugar*

1 *gallon water*
yeast

Cut the fruit up roughly and pour on the boiling water. Leave four days, stirring twice daily. Strain through muslin, dissolve the sugar in the juice and add the yeast. Proceed as directed in paragraphs 1 to 6.

PLUM WINE

SPICED

4 *lb. plums*
1 *lemon*
6 *cloves*
4 *lb. sugar*

1 *orange*
1 *oz. root ginger*
1 *gallon water*
yeast

Bruise the ginger in a bowl and add the cloves, cut-up plums, lemon and orange. Pour on the boiling water; when cool add the yeast and allow to stand five days, stirring twice daily. Strain, dissolve the sugar in the juice and proceed as directed in paragraphs 1 to 6.

QUINCE WINE

20 quinces
3 lb. white sugar
yeast

1 gallon water
2 lemons

Grate the quinces as near to the core as possible. Boil the pulp in the water for fifteen minutes. Strain into a jug and to the juice add the sugar followed by the juice and grated rinds of the lemons. Allow to cool, add the yeast and allow to stand twenty-four hours. Strain and proceed as directed in paragraphs 1 to 6.

RAISIN WINE I

4 lb. raisins
yeast

1 gallon water
1 lb. sugar

Remove any stalks from the raisins, wash the fruit in a colander, drain, then chop coarsely. Drop into a jar, add the yeast and cold water and insert an air lock or loosely fitting cork. Keep in a warm room until fermentation ceases, shaking the jar twice daily. Strain and proceed as directed in paragraphs 2 and 5.

RAISIN WINE II (See also Potato Wines)

2 lb. raisins
3 lb. demerara sugar
1 large potato

1 gallon water
1 lb. wheat
yeast

Wash the wheat well, leave in a warm oven to soften but not to cook. Put the wheat into a jug, together with a well-scrubbed potato cut into two. Add the sugar and chopped raisins, followed by the cold water and yeast. Stir vigorously twice daily for six days, then transfer to a jar and insert an air lock or loosely fitting cork. Leave until fermentation ceases. Strain through muslin and proceed as directed in paragraphs 2 to 6.

RAISIN WINE III

<i>2 lb. raisins</i>	<i>½ oz. tartaric acid</i>
<i>2½ lb. white sugar</i>	<i>(B.P. quality)</i>
<i>yeast</i>	<i>¼ oz. ammonium sulphate</i>
<i>1 gallon water</i>	<i>(B.P. quality)</i>

Chop the raisins coarsely, put in a jug and add the water in which the sugar, ammonium sulphate and tartaric acid have been previously dissolved. Stir well, add the yeast and cover with a thick cloth. After one week, strain through a thick cloth and squeeze out any liquid from the residue. Allow fermentation to continue in a jar and make a still, dry or sweet wine as directed in paragraphs I to 3 and 5.

The flavour is particularly pleasant if the skin and juice of 6 mandarin or tangerine oranges are added to the jug.

RASPBERRY WINE

See recipes given for Blackberry Wine I or II (pp. 31-32). Raspberries give one of the most aromatic fruit wines.

RED CURRANT WINE

See recipes given for Blackcurrant Wine (p. 33).

ROSEHIP WINE

<i>4 pints rosehips</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>yeast</i>

Gather the rosehips after the first frost. Wash, drain and crush with a mallet. Dissolve the sugar in the warm water and allow to cool. Put the crushed rosehips into a jar, pour in the cool syrup and add the yeast. Insert an air lock or loosely fitting cork and leave in a warm room until gas is no longer formed. When fermentation ceases, strain liquid through muslin followed by organdie and put in a clean jar. Leave in a cold room for fourteen days and continue as directed in paragraphs 3 to 6.

ROWANBERRY WINE

Rowanberries
white sugar
yeast

water
root ginger

Gather berries when they are ripe and dry, remove stalks and place the fruit in a bowl. Just cover with boiling water, crushing the fruit with a wooden spoon, and leave four days. Strain and to each gallon of liquid add 3 lb. of sugar and 1 oz. bruised root ginger (tied in a muslin bag). Stir until the sugar is dissolved and then add the yeast. Proceed as directed in paragraphs 1 to 6, removing the ginger after ten to fourteen days of fermentation.

SLOE WINE

2 lb. sloes
white sugar

1 gallon water
yeast

Remove stalks, then wash and drain the fruit. Put the dry fruit in a bowl, crush or mince and leave the pulp overnight. Pour the boiling water over it and leave three days, stirring twice daily. Strain through muslin and to each gallon of juice add 4 lb. sugar. Stir until dissolved, add the yeast and then proceed as directed in paragraphs 1 to 6.

SLOE WINE

SPICED

2 lb. sloes
4 lb. white sugar
2 paprika pods or chillies

1 gallon water
1 oz. root ginger
yeast

Put the washed and drained fruit, free from stalks, into a jug and pour on the boiling water. Leave until the fruits burst, then strain through muslin and dissolve the sugar in the juice. When cool, add the yeast and bruised spices and proceed as directed

in paragraphs 1 to 6, straining off the pulp after fourteen days of fermentation.

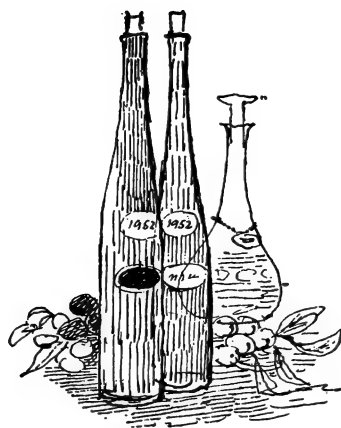
This should be prepared as a sweet wine and only if a rather peppery flavoured type is liked.

WHORTLEBERRY WINE

<i>5 pints whortleberries</i>	<i>4 pints soft water</i>
<i>4 pints draught cider</i>	<i>3½ lb. white sugar</i>
<i>2 oz. cream of tartar</i>	<i>1 oz. root ginger</i>
<i>1 teaspoon each of dried lavender and rosemary leaves</i>	

Bruise the ginger and put in a jar with the other ingredients. Insert an air lock or a loosely fitting cork and leave in a warm room until gas is no longer formed. Strain through muslin and proceed as directed in paragraphs 2 to 6.

This recipe has been adapted from one used in 1824, the principal changes being the omission of a large volume of rum and an increase in the amount of sugar added. A gill of rum may be added at the time of storage if anyone wishes to reproduce to some extent the original flavour of this wine.



Grape Wines

Grape wines have been made in England from mediaeval times, but with the dissolution of the monasteries, production decreased until at the beginning of the twentieth century it had almost ceased. Interest in outdoor grape growing revived in recent years and a selection of European varieties and some of the newer hybrids have been introduced into England. Mr. Barrington Brock, of Oxted, Surrey, has taken a leading part in this revival. Only the early ripening varieties have proved reliable in our climate.

Grape growing and wine making are subjects too wide to be dealt with satisfactorily in a short chapter; for anyone really interested simple details are given in the following:

ANNUAL REPORTS OF THE VITICULTURAL RESEARCH STATION,
Oxted, Surrey. No. 1, 1949, etc.

GRAPE GROWING AND WINE MAKING, by S. M. Tritton, *Grey Owl Research Laboratory*, 1951

VINEYARDS IN ENGLAND, edited by Edward Hyams, *Faber and Faber*, 1953

WINE GROWING IN ENGLAND by George Ordish, *Rupert Hart-Davis*, 1953

THE FRUIT YEAR BOOK 1950, pages 110-114

WINES AND JUICES, by F. W. Beech & A. Pollard, *Hutchinson*, 1961

DRY WHITE WINE

<i>Grapes</i>	<i>yeast culture</i>
<i>Campden tablets</i>	<i>white sugar</i>
<i>precipitated calcium carbonate</i>	

Black or white grapes may be used for making white wine. Strip the grapes from the stalks and crush them either with the hands, a block of wood, the feet or by passing them through the thoroughly cleaned rollers of a domestic wringer laid horizontally over a tub. The pulp is squeezed **lightly** through muslin. (If black grapes have been used the residue may be used for making red wine.) The juice is measured and 1 lb. of sugar and 2 Campden tablets are dissolved in each gallon of juice. The sugar is necessary since grapes grown in England rarely have the high sugar content of grapes grown in sunnier climates.

The Campden tablets supply sulphur dioxide which destroys unwanted yeasts and bacteria, as well as preventing the wine turning brown during later storage. Contrary to statements made in some books, it does not 'kill' the juice, it merely selects the desirable yeasts from the natural juice flora.

The juice is left twelve to twenty-four hours and syphoned off from any deposit that may have formed. A wine yeast culture is added and the yeasted juice poured in a jar to fill it. The jar is stood on a dish and kept in a warm room. Fermentation should commence within forty-eight hours, when froth is produced and continues to form for several days. When it ceases, the outside of the jar is cleaned and an air lock is inserted. The jar is left until gas bubbles cease to form; it is then taken into a cold room and left for fourteen days before syphoning off the partially clarified wine into a clean jar.

Wine made from grapes grown in England usually contains too much fruit acid (malic and tartaric) and it is necessary to remove some of this before it is drinkable. For each gallon of wine dissolve $\frac{1}{2}$ oz. precipitated calcium carbonate in a little of the wine and mix it in with the main bulk. Keep the wine as

cold as possible; if a snowfall occurs keep the corked jar buried in the snow. Crystals of calcium tartrate will form and the cold wine is syphoned or racked from them. Store the filled and sealed jar until the Spring and then taste it. If it is still too acid—remember the wine will be dry—insert an air lock and keep the jar in a warm room again. After a time small bubbles of carbon dioxide will form due to the action of malolactic bacteria which destroy the malic acid and convert it into lactic acid which has a lower acidity. When no gas bubbles form, top up the jar and wax over the top.

The wine should be stored for several months until it is clear, it is then syphoned off into clean bottles. Cork, wire and store the bottles on their sides in the cellar for at least six months before sampling.

Dry white wines should be drunk, preferably chilled, during a meal with fish, poultry, pork or veal dishes.

SWEET WHITE WINE

A dry white wine is fermented as directed above and after the first racking half a pound of sugar is added to each gallon. The air lock is reinserted and the jar left in a warm room. When fermentation ceases, taste the wine and, if dry, repeat the process of sweetening and fermenting. Continue until the sugar is no longer fermented. Taste the wine; if it is too acid, de-acidify as directed in the recipe above. If the amount of acid is satisfactory, syphon the wine into a clean jar which should be full when the cork is inserted. Wax over the top and store in a cool place for at least six months. Syphon off the wine without disturbing the deposit, bottle, cork, wire and store the bottles on their sides in a cellar for at least six months.

This type of wine can be drunk with desserts, nuts and fruits.

DRY RED WINE

Black grapes
white sugar

yeast culture
Campden tablets

Only black grapes should be used; if they are only lightly coloured use part of the juice for white wine and the partially pressed pulp for red wine.

The grapes are crushed as before and placed in a wooden tub fitted with a wooden draw-off tap in the bottom. For small quantities of grapes a jug or glass jar should be used and the tap dispensed with. For each 14 lb. of grapes, dissolve one Campden tablet in a little water and pour over the pulp, mixing it in well. The pulp will be bleached slightly at first, but the colour will be restored as soon as fermentation sets in. Leave the pulp overnight and then add the yeast culture. Fermentation should start after approximately twenty-four hours, the cap of pulp should then be pressed down twice daily and swirled slightly in the juice on each occasion. When the juice is suitably coloured (about one to three weeks) draw it off and pour it into a jar or cask. Squeeze the remainder of the pulp in muslin or in a thick cloth and add the juice to that already drawn off. 1 lb. white sugar is added to each gallon and the juice is then treated as directed for dry, white wine, except that no more Campden tablets are added.

Dry, red wine should be drunk during dinner with venison, beef, game or dark poultry meats.

SWEET RED WINE

Prepare the juice as directed for dry red wine, ferment, then sweeten and re-ferment as directed for sweet white wine.

This wine can be drunk with desserts, fruit and nuts or in the evening.

SPARKLING WINES

Sparkling red and white wines, dry or sweet, may be prepared by following the further directions given on pages 27, 28 and 29 at the time of bottling.

TRADITIONAL COTTAGE RECIPE

4 lb. grapes

1 gallon water

3½ lb. white sugar

In this recipe water is added to reduce the natural acidity of the juice, but at the same time the fruit flavour is correspondingly reduced.

Strip the grapes from their stalks and bruise well in a clean bowl or wooden tub. Pour cold water over the pulp and leave covered with a thick cloth for three days, stirring frequently. Strain through muslin and to each gallon add 3½ lb. sugar. Stir until the sugar dissolves and then pour into a clean jar or cask. Insert an air lock or a loosely fitting bung and leave in a warm room until fermentation ceases. Remove to a cold room and leave one or two weeks and then syphon or decant the wine into a clean jar without disturbing the yeast deposit. Make sure the jar is filled when the cork is inserted, wax over the top and leave six months. Syphon or decant again, bottle, cork and wire. Store the bottles on their sides in a cellar for a further six months before sampling.

This recipe gives a dry wine, the colour varying from white to pink, depending on the type of grapes used. If a sparkling wine is preferred add two raisins to each bottle before corking. For a sweet still wine add 5 to 6 lb. of sugar to each gallon of juice instead of 3½ lb.



Flower Wines

Flower wines should recapture the delightful fragrance of the blossoms from which they were made. Hence it is usual to add a sugar syrup to flower heads which are not heated. In a few cases when it is necessary to boil the flowers with water in a saucepan, note the volume before heating and make up to this quantity again at the end of the boiling with extra water. Although one gallon of water is used initially in each recipe, the addition of 3 lb. of sugar will increase the volume by another $1\frac{1}{2}$ pints.

These wines are very pleasant when made as sparkling wines; while they are being drunk, the bubbles of carbon dioxide, escaping from the liquid, carry the flower scent to the nose of the drinker. Flower wines were once drunk for their medicinal properties; if they do possess any, it is surely a pleasant way of

improving one's constitution. Where a correspondent has indicated any such properties, they are quoted at the end of the appropriate recipe. Those interested in such virtues should consult Mary Aylett's book COUNTRY WINES, *Odhams Press*, 1953.

Flowers do not usually contain many suitable fermenting yeasts and it is necessary to add wine, brewer's or baker's yeast. A wine yeast is best, adding the amount recommended by the distributor. Alternatively, one teaspoonful of compressed baker's or brewer's yeast may be added to each gallon. Cream the yeast in a little of the sugar syrup before adding to the main bulk. If only liquid brewer's yeast or 'barm' is available, then add one tablespoonful of this to each gallon.

A list of ingredients is given with each recipe, followed by a method for preparing the sweetened and yeasted extract. Reference should then be made to the opening paragraphs of *Fruit Wines* for the remaining details (pp. 25-29). The amount of flowers required is usually expressed in terms of quarts or gallons. Fill a jug of the required size with florets only lightly pressed down.

AGRIMONY WINE

1 medium sized bunch of agrimony	1 gallon of water
3 oranges	3 lemons
3½ lb. white or demerara sugar	2 oz. root ginger
	yeast

Boil the agrimony and bruised ginger in the water until a good colour is obtained, adding more water, if necessary, to restore the original volume. Pour the liquid on to the sugar, peel (no white pith) and juices of the lemons and oranges. Mix until the sugar is dissolved and when cool add the yeast. Leave three days, stirring twice each day, then strain into a jar and continue as directed in paragraphs 1 to 6 (pp. 26-29).

Said to be useful for severe colds. The plants should be gathered in July and can be used fresh or dry.

BROOM OR GORSE WINE I

1 gallon broom flowers	1 gallon water
4 lb. sugar	2 oranges
2 lemons	yeast

Strip the flowers from the shoots, discarding the latter. Place the flowers in a bag, drop into the water and simmer gently for fifteen minutes, adding more water if necessary. Take out the bag, squeeze as hard as possible, adding the liquid to that in the pan. Dissolve the sugar in the liquid, add the juice and rinds (no white pith) of the oranges and lemons and allow to cool. Add the yeast, leave three days, then strain into a jar and continue as directed in paragraphs 1 to 6.

BROOM WINE II

Use the same ingredients as for Broom Wine I

Drop the sugar and orange and lemon peel (no white pith) into the water in a saucepan. Boil for thirty minutes, stirring frequently and replacing water boiled off. Allow to cool and pour over the flowers. Add the yeast and fruit juice and continue as directed in paragraphs I to 6.

CLOVER WINE

1 gallon purple clover blossoms	1 gallon water
3 lemons	2 oranges
3 lb. white sugar	yeast

Boil the sugar and water together for a few minutes to make a syrup, allow to cool and pour over the flowers, juice and peel (no white pith) of the fruit. Add the yeast and leave five days, stirring each day. Strain into a jar and continue as directed in paragraphs I to 6.

COLTSFOOT WINE

1 gallon coltsfoot flowers	1 gallon water
3 oranges	1 lemon
3½ lb. sugar	yeast

Pick the flowers in dry weather, snap off as near the top as possible and drop into a jug. Add the juice and rind (no white pith) of the fruits and pour in a syrup made by dissolving the sugar in the boiling water. When cool add the yeast and leave five days. Strain into a jar and continue as directed in paragraphs I to 6.

COWSLIP WINE

<i>1 gallon cowslip flowers</i>	<i>1 gallon water</i>
<i>4 lb. white sugar</i>	<i>1 lemon</i>
<i>2 oranges</i>	<i>yeast</i>

Use only the yellow parts of the flowers, discarding the green lower portions. Boil the sugar in the water until it dissolves and then pour the hot syrup over the orange and lemon peels (no white pith). When cool add the flowers, followed by the yeast and fruit juices. Leave for five days and then continue as directed in paragraphs 1 to 6.

Sun-dried cowslips may be used instead but the wine made from them does not have such a fine aroma as one made from fresh flowers.

DANDELION WINE I

<i>2 quarts dandelion heads</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>4 oranges</i>
<i>yeast</i>	

Cut off the yellow heads, discarding the green portions; without this procedure the wine will cease fermenting prematurely and cannot be re-started. Pour the boiling water over the flowers and leave for two days. Boil the mixture ten minutes with the orange peels (no white pith) and strain through muslin on to the sugar. When cool add the fruit juice and yeast, then continue as directed in paragraphs 1 to 6.

DANDELION WINE II

1 gallon dandelion heads	1 gallon water
4 lb. demerara sugar	$\frac{1}{4}$ oz. root ginger
$\frac{1}{2}$ lb. raisins	1 lemon
1 orange	yeast

Measure the yellow heads into a pan and pour over the boiling water, leave three days, stirring several times daily. Strain into a pan and add the sugar, fruit rind (no white pith) and bruised ginger. Bring to the boil and simmer for thirty minutes, adding more water, if necessary, to restore the original volume. Strain again and when cool add the yeast and fruit juice. Pour into a jar with the chopped raisins and continue as directed in paragraphs 1 to 6.

This recipe is suitable for making as a sweet wine. It should be kept at least a year before sampling, whereas the previous one is more suitable for a dry wine and can, if necessary, be drunk earlier.

Dried dandelion heads can be substituted for the fresh flowers and in this case only half a gallon of heads will be necessary. They should be dried in the sun and hung in paper bags in a dry place.

Dandelion wine is said to be good for liver troubles and to be a tonic.

ELDERFLOWER CHAMPAGNE

2 heads of elderflower	1 gallon water
1 $\frac{1}{2}$ lb. white sugar	1 lemon
2 tablespoons white-wine vinegar	

Pick the heads when in full bloom and put into a bowl followed by the lemon juice, cut-up rind (no white pith), sugar and vinegar. Add the cold water and leave twenty-four hours.

Strain into strong, screw-stoppered bottles and leave for two weeks when this summer drink should be sparkling and ready to drink. The yeasts that produce the gas are weakly fermenting species derived from the flowers. Hence Campden tablets cannot be added to the original mixture. Consequently in some years the product develops an oily texture due to the action of certain lactic acid bacteria. Their action can be restricted by using the correct type and amount of vinegar and by having the bottles only three-quarters full.

ELDERFLOWER WINE

Elderflowers
3 lb. white sugar
yeast

1 gallon water
2 lemons

On a fine day gather the flower heads when in full bloom and rub bunches together, collecting the florets in a bowl. Continue until there are sufficient to fill a pint jug, pressed down. Return to the bowl, add the thin cut-up lemon rind (no white pith) and the sugar. Pour the boiling water into the bowl and stir until the sugar is dissolved. To the cold mixture add the yeast and lemon juice, leave for two days; strain, and continue as directed in paragraphs 1 to 6. The wine may have a bitter flavour if the flower heads are picked before they are fully ripe.

This recipe is very good for making a sparkling wine; an even more pleasant wine can be made if a large grapefruit is used instead of lemons.

GOLDEN ROD WINE

<i>Double handful of blossoms</i>	<i>1 gallon water</i>
<i>4 lb. white sugar</i>	<i>6 sweet oranges</i>
<i>½ lb. raisins</i>	<i>yeast</i>

Simmer the sugar and water together for a few minutes to dissolve, and pour on to the orange juice and flowers. When cool add the yeast and leave five days, stirring several times daily. Strain into a jar, add the chopped raisins and continue as directed in paragraphs 1 to 6.

HAWTHORN FLOWER WINE

<i>2 quarts hawthorn flowers</i>	<i>1 gallon water</i>
<i>3½ lb. white sugar</i>	<i>2 lemons</i>
<i>yeast</i>	

Boil the sugar and lemon rind (no white pith) in the water for thirty minutes, adding more water if necessary. Pour into a bowl and when cool add the yeast. Leave twenty-four hours and then add the flowers. Leave another eight days, stirring each day. On the last day give a final stir, then strain through muslin and continue as directed in paragraphs 1 to 6.

MARIGOLD WINE

<i>1 gallon marigold heads</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>2 lemons</i>
<i>yeast</i>	

Simmer the sugar and water together for a few minutes to dissolve and then allow to cool. Add the crushed flowers (use the golden petals only), lemon juice and rind (no white pith) followed by the yeast. Leave four days, stirring twice daily, then strain and continue as directed in paragraphs 1 to 6.

MAY BLOSSOM WINE

1 quart may blossoms
3½ lb. white sugar
yeast

1 gallon water
1 orange

Boil the sugar and orange peel (no white pith) with the water for fifteen minutes. Allow to cool slightly and pour over the blossoms and orange juice. When cool, add the yeast and leave three days, stirring twice daily. Strain and continue as directed in paragraphs 1 to 6.

May blossom is another name for hawthorn flowers, but this recipe is included as slightly different ingredients are used to those given in the recipe above.

PANSY WINE

2 gallons pansies
4 lb. sugar
2 lemons
2 large sweet apples

1 gallon water
½ oz. powdered ginger
2 oranges
yeast

Lay the fresh-picked, white or purple pansy flowers on a clean cloth in the warm sun for three days. Put alternate layers of dried pansies and sugar in a bowl and dust with the ginger powder. Leave for three days, stirring and mashing each day. Add the juice and rinds (no white pith) of the oranges and lemons, the cut-up apples and pour in the lukewarm water. Add the yeast and leave three days, stirring vigorously twice daily. Strain and continue as directed in paragraphs 1 to 6.

This recipe has been modified from another written in a diary of an eighteenth-century Herefordshire farmer's wife. The original recommended generous additions of brandy and concluded 'It be verrie strong and did make my head to busse and the chairs to dance so that I did go to my bedchamber and rest a while'—which is why the brandy is no longer recommended!

PRIMROSE WINE

Use the quantities of ingredients and the method given for Cowslip Wine (p. 55).

ROSE PETAL WINE I

<i>2 quarts rose petals</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>yeast</i>

Put the petals in a bowl, add one quart of boiling water and crush well with a wooden spoon. When cool, strain, collecting the liquid in a jar. Return the petals to the bowl, add another quart of boiling water and repeat the crushing and straining. Add the second batch of liquid to the first. Dissolve the sugar in the remaining two quarts of water and pour into the jar together with the yeast. Continue as directed in paragraphs 1 to 6. Wine made from rose petals has a delightful fragrance.

ROSE PETAL WINE II

<i>1 gallon rose petals</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>1 orange</i>
<i>1 lemon</i>	<i>yeast</i>

Dissolve the sugar in the water and pour into a jar containing the petals, then add the yeast and fruit juices. Insert a loosely fitting cork and leave nine days, shaking once each day. Strain and continue as in paragraphs 1 to 6.

When making Rose Petal Wine use only the strongest scented roses. The old-fashioned varieties such as the China rose, Damask rose or Musk rose are very suitable.



Herb Wines

including Ginger Wine

Although herb wines were often made originally for their tonic properties, they are also very pleasant to drink. The method of preparing the juice is given with each recipe and then reference is made to the instructional paragraphs in *Fruit Wines* for the remaining details (pp. 26-29).

Where it is necessary to boil the herbs or sugar with water for more than a few minutes, more water should be added during the boiling process to restore the original volume.

BALM OR BALSAM WINE

2 quarts balm leaves	1 gallon water
3 lb. sugar	1 lemon
yeast	

Boil the sugar, lemon rind (no white pith) and water together for fifteen minutes, skimming if necessary. Pour over the balm leaves in a jug and allow to cool. Add the yeast and lemon juice and leave covered with a thick cloth in a warm room for four days. Strain into a jar and continue as directed in paragraphs 1 to 6, pp. 26-29.

GINGER WINE

2 oz. root ginger	1 gallon water
3 lb. white or demerara sugar	2 sweet oranges
2 lemons	$\frac{1}{2}$ lb. raisins
yeast	

Peel the fruit thinly, avoiding the white pith, and put in a jug with the chopped raisins and fruit juice. Boil the sugar, water and crushed ginger together for thirty minutes, skimming if necessary, and adding more water to restore the original volume. Strain when cool into the jug and add the yeast, cover with a thick cloth and leave in a warm room for seven days. Stir well and pour into a jar. Continue as directed in paragraphs 1 to 6. If hazy after storage, clear by fining with gelatine and tannin (p. 17).

Ginger wine is better prepared as a sweet, still wine rather than as a dry or sparkling one.

NETTLE WINE

2 quarts young nettle tops	1 gallon water
4 lb. white sugar	2 lemons
$\frac{1}{2}$ oz. root ginger	yeast

Wash and drain the nettle tops and simmer in the water, with the bruised ginger and lemon peel (no white pith) for forty-five minutes, replacing any water boiled away. Strain, pour the hot liquid over the sugar and stir until the sugar dissolves. Allow to cool, add the yeast and continue as directed in paragraphs 1 to 6.

PARSLEY WINE I

1 lb. parsley heads	1 gallon water
2 oranges	1 lemon
4 lb. demerara sugar	yeast

Pluck the parsley from the stalks before weighing, wash well, then place in a muslin bag with the thinly pared orange and lemon rinds (no white pith). Drop the bag into the water, bring to the boil and simmer for fifteen minutes. Remove the bag, squeeze out as much juice as possible and pour the combined extracts over the sugar. Stir until dissolved and when cool add the yeast and fruit juices. Continue as directed in paragraphs 1 to 6.

PARSLEY WINE II

$\frac{3}{4}$ lb. parsley heads	1 gallon water
4 lb. white sugar	1 oz. root ginger
2 lemons	yeast

Boil the bruised ginger, lemon rind (no white pith) and prepared parsley heads in the water for thirty minutes, replacing any water boiled away. Strain on to the sugar and stir until dissolved. Allow to cool, add the yeast and continue as directed in paragraphs 1 to 6.

PARSLEY OR GOLDEN WINE III

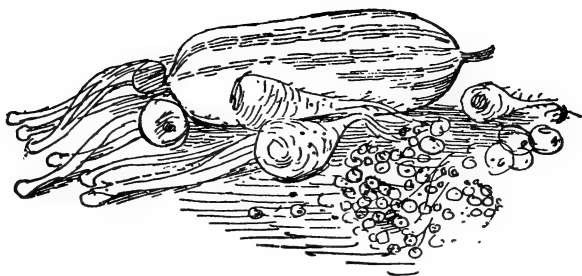
1 lb. parsley heads	1 gallon water
2 oz. mint	2 oz. tender spring herbs (balm, comfrey, etc.)
4 lb. white sugar	1 oz. root ginger
1 lemon	
yeast	

Wash and drain all the herbs and then put in a saucepan with the water, bruised ginger and lemon rinds (no white pith). Simmer for forty-five minutes, replacing any water boiled away, then strain and pour the hot liquid over the sugar. Stir until dissolved, allow to cool, add the yeast and continue as directed in paragraphs 1 to 6.

TEA WINE

1 gallon tea	3 lb. white sugar
$\frac{1}{2}$ lb. large raisins	2 lemons
yeast	

Save tea left over from the teapot until there is the required amount. Add this to the sugar and lemon juice. Stir until the sugar dissolves, then pour into a jar with the yeast and chopped-up raisins. Continue as directed in paragraphs 1 to 6.



Vegetable Wines

Rhubarb is included in this section although handbooks on bottling and canning include it amongst fruits. Of the root wines, parsnip has the finest flavour, while beetroot wine is good if allowed to mature two years to remove the slight earthy flavour. Most of the other vegetable wines need added spices to improve their flavour.

In general, old vegetables free from disease are used. They are scrubbed clean and boiled until soft with the lid of the saucepan left off, *replacing any water lost during boiling*. The mash is strained through a heavy cloth or several layers of muslin and the required amount of sugar dissolved in the liquid. A yeast culture must be added when cool, since there are usually very few suitable yeasts present on vegetables.

With each recipe a list of ingredients is given, followed by a method for preparing the sweetened and yeasted extract. Directions for preparing dry, sweet, still or sparkling wines are given in the opening paragraphs of *Fruit Wines*, reference to which is made in the recipes (pp. 26-29).

BEETROOT WINE

<i>5 lb. old beetroots</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>1 lemon</i>
<i>3 Campden tablets</i>	<i>yeast</i>

Wash the roots well, cut up into small cubes, or slice and drop directly into the cold water. Boil until tender, strain, and dissolve the sugar in the liquid. When cool add the Campden tablets and lemon juice. Next day add the yeast and continue as directed in paragraphs 1 to 6 (pp. 26-29).

BEETROOT WINE

SPICED

<i>5 lb. old beetroots</i>	<i>1 gallon water</i>
<i>3½ lb. white sugar</i>	<i>4 cloves</i>
<i>½ oz. root ginger</i>	<i>yeast</i>
<i>juice of 1 lemon and 1 orange</i>	

Wash the roots well and slice into one gallon of cold water. Boil until tender and strain the boiling liquid into a jug containing the sugar, cloves, fruit juice and bruised ginger. Stir until the sugar is dissolved. When cool add the yeast and leave for seven days. Strain through muslin and continue as directed in paragraphs 1 to 6.

CARROT WINE

<i>4 lb. carrots</i>	<i>1 gallon water</i>
<i>4 lb. demerara sugar</i>	<i>2 oz. root ginger</i>
<i>juice of 2 oranges and 2 lemons</i>	<i>yeast</i>

Scrub the carrots clean but do not peel. Slice into the cold water and add the bruised ginger. Boil until the carrots are tender, then strain on to the sugar. Stir until dissolved and, when cool, add the yeast and fruit juices. Continue as detailed in paragraphs 1 to 6.

Juice from two grapefruit may be substituted for lemon juice.

LETTUCE WINE

<i>2½ lb. lettuce</i>	<i>1 gallon water</i>
<i>3½ lb. white sugar</i>	<i>1 pint wheat</i>
<i>½ lb. raisins</i>	<i>1 lemon</i>
<i>1 orange</i>	<i>yeast</i>

Boil the chopped lettuce in the water for half an hour, replacing any water boiled away, and then strain into a jug on to the sugar, sliced fruit and chopped raisins. Stir vigorously, cool and add the wheat and yeast. Strain again after seven days into a jar, make up to volume with water and continue as directed in paragraphs 1 to 6.

MANGOLD WINE

<i>4 lb. mangolds</i>	<i>1 gallon water</i>
<i>3 lb. demerara sugar</i>	<i>1 lemon</i>
<i>1 orange</i>	<i>½ teacup hops</i>
<i>yeast</i>	

Do not peel the roots but scrub and dry. Slice into a saucepan, add the water and suspend in it a muslin bag containing the hops. Boil until the mangolds are tender, then strain. Re-suspend the bag of hops in the liquid and boil again for twenty minutes. Remove the bag and pour the juice into a jug containing the sugar, fruit juice and peel (free from white pith). Stir until the sugar is dissolved. When cool, add the yeast and leave seven days. Strain and continue as directed in paragraphs 1 to 6.

MARROW WINE

<i>5 lb. ripe marrow</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>2 lemons</i>
<i>2 oranges</i>	<i>1 oz. root ginger</i>
<i>yeast</i>	

Grate the ripe marrow and use the seeds, slice the oranges and lemons, bruise the ginger and drop all into a jug. Pour over the boiling water and when cool add the yeast culture. Allow to stand five days, stirring frequently, then strain into a jar and dissolve the sugar in the liquid. Continue as directed in paragraphs 1 to 6.

PARSNIP WINE

3 lb. parsnips	1 gallon water
3 lb. white sugar	$\frac{1}{2}$ oz. citric or tartaric acid
3 Campden tablets	$\frac{1}{4}$ oz. Pectozyme
yeast	

Use well-frosted parsnips, scrub them well, cut out scabs but do not peel the roots. Slice or cube and boil in the water until the sections can just be penetrated easily with a fork. Leave the lid off the saucepan during the boiling and do NOT allow the roots to get mushy, replacing the water lost in cooking. Strain the liquid on to the sugar, acid and Campden tablets. Stir until these dissolve and when the liquid is cool add the Pectozyme. Next day strain into a jar and add the yeast culture. Continue as directed in paragraphs 1 to 6. Use the smaller and more delicate flavoured varieties of parsnips for the best results.

PARSNIP WINE

SPICED

3 lb. parsnips	1 gallon water
3 lb. demerara sugar	1 oz. root ginger
1 lemon	2 oranges
yeast	$\frac{1}{4}$ oz. Pectozyme

Scrub well-frosted parsnips clean, cut into slices and boil in the water with the bruised ginger and rinds from the fruits (remove the white pith first) until the slices are tender. Strain the liquid on to the sugar, Pectozyme and fruit juices and stir until the sugar is dissolved. Allow to cool, add the yeast and continue as directed in paragraphs 1 to 6.

Parsnip Wine can also be made using the recipe given for Mangold Wine (p. 67).

PARSNIP AND BEETROOT WINE

3 lb. <i>old beetroots</i>	1 gallon <i>water</i>
2 lb. <i>frosted parsnips</i>	3½ lb. <i>white sugar</i>
¼ oz. <i>root ginger</i>	8 <i>cloves</i>
<i>yeast</i>	

Prepared as directed for Spiced Beetroot Wine (p. 66).

PEA POD WINE

5 lb. <i>pea pods</i>	1 gallon <i>water</i>
3 lb. <i>white sugar</i>	<i>yeast</i>

Wash the pods clean, boil in the water until they are tender, then strain and dissolve the sugar in the warm liquid. Add the yeast and continue as directed in paragraphs 1 to 6.

POTATO WINE I

5 lb. <i>old potatoes</i>	1 gallon <i>water</i>
4 lb. <i>demerara sugar</i>	1 oz. <i>root ginger</i>
2 <i>lemons</i>	2 <i>oranges</i>
<i>yeast</i>	

Scrub the potatoes clean, cut in half and boil until soft but not mashed. Strain, and to the liquid add the fruit rinds (exclude the white pith) and the bruised ginger. Boil another fifteen minutes, and pour on to the sugar, stir until dissolved. When cool add the yeast and fruit juices. Leave three days, strain, and run the liquid into the fermentation jar. Continue as directed in paragraphs 1 to 6.

This type of potato wine owes most of its flavour to the oranges, lemons and ginger. The following recipes will probably give better flavoured wines.

POTATO WINE II

6 <i>old potatoes</i>	1 <i>gallon water</i>
1 <i>lb. green grapes</i>	1 <i>lb. raisins</i>
3 <i>lb. demerara sugar</i>	<i>yeast</i>

Dissolve the sugar in boiling water. Scrub the potatoes and slice them into a jar, add the chopped raisins, crushed grapes and yeast, then pour in the cold sugar syrup. After seven days strain into a clean jar, make up to volume with water and continue as directed in paragraphs 1 to 6.

POTATO WINE III (see also Raisin Wine)

4 <i>large potatoes</i>	1 <i>gallon water</i>
4 <i>lb. demerara sugar</i>	2 <i>lb. raisins</i>
1 <i>pint wheat</i>	<i>yeast</i>

Scrub the potatoes clean and allow to dry. Grate coarsely into a jar, add the wheat, sugar and chopped raisins, followed by the boiling water. Stir until the sugar dissolves and when lukewarm add the yeast. Seven days later, strain into a clean jar and continue as directed in paragraphs 1, 2 and 5. With both the raisins and the large quantity of sugar, the wine will almost certainly stop fermenting while still sweet so that later additions of sugar syrup will be unnecessary.

POTATO WINE IV

1 <i>lb. old potatoes</i>	1 <i>gallon water</i>
3 <i>lb. demerara sugar</i>	1 <i>lb. wheat</i>
1 <i>lb. prunes</i>	<i>yeast</i>

Scrub the potatoes clean and cut up small. Add the warm water followed by the sugar, wheat and chopped-up prunes. Stir vigorously until the sugar is dissolved and when the mixture is cool add the yeast. Pour into a jar, leave seven days, strain into a clean jar and continue as directed in paragraphs 1 to 6.

POTATO WINE V

2 lb. <i>old potatoes</i>	1 gallon <i>water</i>
1 lb. <i>raisins</i>	1 lb. <i>pearl barley</i>
2 lb. <i>demerara sugar</i>	<i>yeast</i>

Scrub the potatoes clean, cut into slices and boil with the water until soft but not mushy. Strain and pour the warm liquid on to the pearl barley and chopped raisins. Stir vigorously and when cool add the yeast. Pour the mixture into a jar and leave for three days. Strain through muslin, add the sugar and make up to 1 gallon with water. Proceed as directed in paragraphs 1 to 6.

Other recipes using potatoes will be found in the chapter on *Cereal Wines* (p. 73).

RHUBARB WINE I

(For these rhubarb recipes use stalks picked in mid-May)

5 lb. <i>rhubarb stalks</i>	1 gallon <i>water</i>
3½ lb. <i>demerara or white sugar</i>	2 <i>lemons</i>
<i>yeast</i>	

Wipe the rhubarb clean but do not peel, cut into lengths and crush with a mallet or pulper. Pour the cold water over it and leave three days, stirring several times a day. Strain off, squeezing the pulp as dry as possible. To every gallon of juice add 3½ lb. demerara sugar, the juice of two lemons and the grated rind of one. Stir until the sugar is dissolved, add the yeast and leave seven days. Strain into a clean jar and proceed as directed in paragraphs 1 to 6.

RHUBARB WINE II

6 lb. <i>rhubarb stalks</i>	4 lb. <i>white sugar</i>	6 <i>eggshells</i>
$\frac{1}{2}$ lb. <i>large raisins</i>	1 <i>gallon water</i>	<i>yeast</i>

Clean the rhubarb, chop into small sections, mash with a mallet or pulper and drop into a jug. Add the chopped raisins followed by the yeast and cold water and leave covered with a thick cloth in a warm room for five days. Stir and crush with a wooden spoon several times a day during this period. Strain and squeeze the pulp as dry as possible. Dissolve the sugar in the juice and add the broken eggshells. Pour the mixture into a jar and proceed as directed in paragraphs 1 to 6.

RHUBARB AND BLACKBERRY PORT

In May prepare rhubarb wine as outlined in Rhubarb Wine I. Proceed only as far as storing the wine in a jar after the first racking (*i.e.* half-way through paragraph 3). Then, when the blackberries are ripe, cover 3 lb. of cultivated blackberries with one pint of water and bring to the boil. Simmer for a few minutes, squeeze through a cloth and then strain the juice through a jelly bag or several layers of fine muslin. Add to the rhubarb wine and allow to store four months before bottling. The cork of the storage jar should be left loose for ten to fourteen days after adding the blackberry juice in case fermentation sets in.

SPINACH WINE

$2\frac{1}{2}$ lb. <i>spinach</i>	1 <i>lemon</i>	1 <i>orange</i>	<i>yeast</i>
3 lb. <i>white sugar</i>	1 <i>gallon water</i>	1 lb. <i>raisins</i>	

Boil the spinach in the water for thirty minutes, and then strain on to the sugar, lemon juice and peel (avoid the white pith) and chopped raisins. Stir until the sugar is dissolved and when the mixture is cool add the yeast and proceed as directed in paragraphs 1 to 6. This wine should have an attractive pale greenish gold colour.



Cereal Wines

Cereals contain very little fermentable sugar but a lot of starch. Yeasts cannot ferment starch so that the grains have either to be malted to convert the starch to sugar or else they are merely used to give a flavour to a sugar and raisin mixture. Directions for malting will not be given since this may mean taking out a home brewing licence. The starch can be broken down to some extent if a quarter pound of malt extract is added to any of the recipes in this chapter.

The recipes will be given as sent in; if directions are needed for preparing dry, sweet, still or sparkling wines reference should be made to the opening paragraphs of *Fruit Wines*, paragraphs 1 to 6 (pp. 26–29).

BARLEY WINE

1 lb. old potatoes	1 gallon water
1 lb. raisins	1 lb. crushed chicken or
3 lb. white or demerara sugar	pearl barley
yeast	

Scrub the potatoes, cut up small and put the pieces in a bowl, followed by the sugar, crushed barley and coarsely chopped raisins. Add the boiling water, stir until the sugar is dissolved and when cool add the yeast. Pour into a wide-mouthed one-gallon jar. There will then be approximately one quart of liquid surplus which should be kept in a bottle and allowed to ferment with the jar. This can be used for topping up during fermentation or at the time of storage. Keep the filled jar and bottle on a tray in a warm room. Soon froth will form and the jar should be kept full so that the froth is forced out. When froth ceases to form strain the contents of the jar and the bottle through muslin. Pour the liquid into a gallon jar with a normal neck, insert an air lock or loosely fitting bung and allow to ferment again. When gas bubbles cease to form syphon the wine, without disturbing the yeast deposit, into a clean jar which should be full when corked. Keep in a cool place for several months, syphon off the clear liquid, bottle, cork, wire and leave the bottles on their sides to store.

MAIZE WINE

1½ lb. <i>crushed maize</i>	1 gallon <i>water</i>
4½ lb. <i>demerara sugar</i>	1 lb. <i>raisins</i>
4 <i>sweet oranges</i>	1 <i>lemon</i>
<i>yeast</i>	

Peel the rinds of the oranges and lemons thinly, avoiding the white pith. Put the rinds in a jug with the crushed maize, sugar, chopped-up raisins and fruit juice. Add the warm water and stir until the sugar is dissolved. When cool, add the yeast and keep the jug covered with a thick cloth in a warm room for three weeks. Stir each day and at the end of this period strain and bottle. Cork **loosely** and keep in a cool room until the wine clears. Pour or syphon off carefully into fresh bottles, cork tightly and wire. Store on their sides at least a year before sampling.

This will make a sweet wine.

MALT WINE

2 lb. <i>malt extract</i>	1 gallon <i>water</i>
1 lb. <i>white sugar</i>	1 lb. <i>honey</i>
<i>brewer's yeast</i>	

Warm the water until it is just too hot to hold the hand in comfortably. Add the malt extract (which should, of course, not contain cod liver oil) and stir until dissolved. The colour may be improved by boiling the mixture for thirty to sixty minutes; there will be no haze problems since malt extract does not contain any pectin. Make up any losses of water, dissolve the honey and then the sugar in the hot liquid and when cool add the yeast and pour into a jar. Ferment, store and bottle as given for Barley Wine.

RICE WINE

3 <i>lb. rice</i>	1 <i>gallon water</i>
3 <i>lb. sugar</i>	1 <i>lb. raisins</i>
<i>yeast</i>	

Crush the rice and put with the sugar and chopped-up raisins into a jug. Add the hot water and stir until the sugar is dissolved. Allow to cool and add the yeast. Cover with a thick cloth and keep in a warm room for twelve days, stirring occasionally during the first three days. On the last day skim the surface and strain the mixture through some filter paper or cheese cloth. Store the liquid in a filled jar for six months in a cool place. Do not cork down until gas bubbles cease to form. At the end of the storage period filter or syphon off the liquid into bottles. Cork, wire and store the bottles on their sides.

WHEAT WINE

1 <i>pint wheat</i>	1 <i>gallon water</i>
2 <i>lb. raisins</i>	4 <i>lb. demerara sugar</i>
3 <i>sweet oranges</i>	1 <i>lemon</i>
<i>yeast</i>	

Crush the wheat, chop up the raisins and mix with the sugar and hot water in a jug. Leave until just warm and then add the rinds (no white pith) and juice of the fruit followed by the yeast. Cover the jug with a thick cloth and keep in a warm room until gas bubbles cease to form, stirring once or twice each day. Carefully pour through a jelly bag and allow to drip overnight. Do not squeeze or it will become cloudy. Bottle the strained liquid, cork and wire. Store the bottles at least six months on their sides before sampling.

In another recipe the oranges are omitted and two grated potatoes and another lemon added.

See also recipes for Potato Wines in the chapter on *Vegetable Wines* (p. 65).



Tree and Shoot Wines

Wines can be made from the sap of birch, sycamore or walnut trees. The leaves of oak and walnut may also be used as bases for wines.

Birch sap wine has been made for centuries in northern latitudes and for wine makers having access to a grove of these trees it is worth trying. A note of caution is needed on the method of collecting the sap, or the trees may be killed. The trees are tapped in March in cold weather, about a foot from the ground and to a depth of approximately $1\frac{1}{2}$ in. The hole should be no more than $\frac{1}{4}$ in. in diameter and a tap, glass tube or elder branch (with pith removed) inserted to collect the sap. The sap is collected in a bowl and no more than a gallon should be taken from any one tree. A period of two or three weeks may be needed to collect this quantity. After removing the tap or tube, plug the hole with grafting wax or candle wax. Each day's collection should be boiled and bottled until sufficient has been collected.

BIRCH SAP WINE

1 gallon birch sap	3 lb. white sugar
2 lemons	1 seville orange
1 sweet orange	yeast
$\frac{1}{2}$ lb. raisins	

Peel the oranges and lemons thinly, avoiding the white pith. Boil the peels in the birch sap for twenty minutes, adding more water if necessary to restore the original volume, and then pour into a jug containing the sugar and chopped raisins. Stir until the sugar is dissolved and when cool add the yeast and fruit juice. Cover the jug with a thick cloth and keep in a warm room until fermentation ceases. Strain through muslin and store in a filled and sealed jar for six months. Syphon off the wine without disturbing the yeast deposit and bottle. Cork tightly, wire and store the bottles on their sides for at least a year before sampling.

Another recipe recommends replacing the orange with two dozen young birch leaves and this wine is said to recapture the lemony fragrance of a birch wood on a showery spring day.

Sycamore- and walnut-sap wines may also be made in the same manner.

BRAMBLE TIP WINE

1 gallon measure of the tips of young blackberry shoots	1 gallon water
yeast	4 lb. sugar

Boil the tender ends of young blackberry shoots in the water for an hour, keeping the volume constant with added water. Strain through muslin on to the sugar and stir until dissolved. When cool, add the yeast and pour the mixture into a jar which should be filled. Keep in a warm room, inserting an air lock or loosely fitting cork when froth ceases to form. Allow to ferment until gas bubbles no longer form. Cool for several

days, syphon off the wine from the yeast deposit and store in a filled and sealed jar in a cold cellar for six months. Syphon again, bottle, cork, wire and store the bottles on their sides for at least a further six months.

OAK LEAF WINE

<i>1 gallon oak leaves</i>	<i>1 gallon water</i>
<i>4 lb. white sugar</i>	<i>3 sweet oranges</i>
<i>1 lemon</i>	<i>yeast</i>

Pick the leaves during the last week in June or the first week in July. (If picked from trees in a town swirl well in a bowl of cold water and drain.) Pour the boiling water over the leaves and leave for twenty-four hours. Strain off the leaves and simmer the liquid with the sugar and grated lemon rinds for thirty minutes. Allow to cool, strain, and add the yeast and fruit juices. Ferment, store and bottle as directed for Bramble Tip Wine.

VINE PRUNINGS WINE

<i>1 gallon grape vine prunings</i>	<i>1 gallon water</i>
<i>3 lb. white sugar</i>	<i>yeast</i>

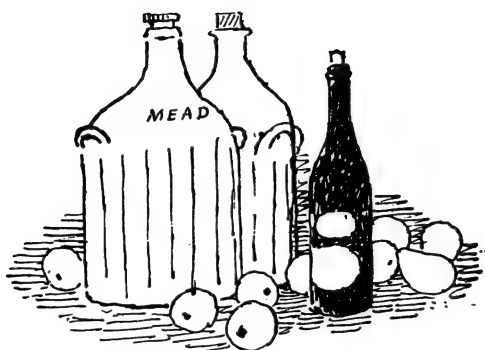
Collect leaves, stems and tendrils from outdoor grape vines until the required quantity is available. If the grapes are also required for wine-making later on, use only the prunings and green shoots; the woody stems should not be cut as they will ooze sap and the crop of grapes will be reduced. If an ornamental grape vine is used for material this warning will not be needed. Do not use leaves or prunings from vines that have been sprayed with Bordeaux or other copper preparations.

Pour the boiling water on to the cuttings in a bowl. Yeast when cool. Leave for four days covered with a heavy cloth in a warm room, keeping the prunings well under water. Strain and dissolve the sugar in the liquid. Ferment, store and bottle as directed for Bramble Tip Wine.

WALNUT LEAF WINE

1 <i>good handful walnut leaves</i>	1 <i>gallon water</i>
3 <i>lb. demerara sugar</i>	1 <i>lb. honey</i>
<i>yeast</i>	

Dissolve the sugar and honey in boiling water. Put the leaves in a bowl and pour on the boiling syrup. Leave twenty-four hours, strain and add the yeast to the liquid. Ferment, store and bottle as directed for Bramble Tip Wine.



Mead and Metheglin

Mead is made by fermenting a mixture of honey and water, while metheglin is a mead flavoured with spices or herbs. Fruit meads are also made, replacing each 1 lb. of sugar in the *Fruit Wines* recipes with $1\frac{1}{4}$ lb. honey. Although these drinks are of very ancient origin, they fell into disfavour during the reigns of the Stuarts, and it is only since the Second World War that interest in them has been revived. Brewer's or baker's yeast can be used to make a good mead but it is preferable to use a suitable mead yeast. In most counties the Beekeeping Officer is prepared to distribute this yeast for a small charge.

Meads

Although mead is made from two simple components, great care is needed during its preparation to produce a first-class wine. Mildly flavoured honey such as clover or lime is ideal, although heather honey may be used for full flavoured, sweet meads. Empire honey can also be used, but spoiled honey should be avoided. Clean rain water or soft tap water are preferable to hard water.

The honey water mixture can be prepared by one of two methods:

- (a) boil the water in an aluminium or enamelled pan and allow to cool to 120° F. (*i.e.* just too warm to hold the hand in comfortably). Add the honey, previously warmed to the same temperature, and stir until dissolved. Cool and add the mead yeast culture; *or*
- (b) heat the mixture of honey and water in an aluminium or enamelled pan until it dissolves and just bring to the boil. Cool it and filter through clean flannel or a jelly bag until it is clear. When cool add the culture of mead yeast.

It is not necessary or desirable to boil the honey water for lengthy periods.

DRY, STILL MEAD

3 lb. mild flavoured honey 1 gallon water
mead yeast

Prepare the yeasted honey-water mixture by either method (a) or (b) above and pour into a clean jar or cask, keeping any surplus in a small bottle for topping up later on. Stand the container in a warm room and soon froth will begin to form as fermentation starts. Add more honey-water from the bottle to keep the container full and when froth ceases to form, clean the outside of the jar or cask and insert an air lock. When fermentation finally ceases, remove the jar or cask to a cold room and keep it there for two to three weeks. Syphon off the mead with a clean rubber tube without disturbing the yeast deposit. Pour the mead into a clean jar or cask until it is full. Insert a cork and carefully wax over the top with paraffin- or bees-wax. Store for six months and again syphon off the liquid, bottle, cork, wire and store the bottles on their sides in a cellar for at least another six months.

DRY, SPARKLING MEAD

Ferment the honey-water, starting in September or October, using the recipe and method given above. During February or March of the following year, *i.e.* after six months' storage, syphon off the mead and to each gallon add a mixture of 2 oz. honey or white sugar dissolved in $\frac{1}{4}$ pint of boiled and cooled water. Mix thoroughly and bottle, using strong bottles, preferably champagne bottles. Cork, wire and store the bottles on their sides in a cellar for nine months before sampling. A thin twist of lemon peel added to the main bulk of the honey-water improves the flavour.

SWEET, STILL MEAD I

6 lb. *heather honey*
mead yeast

1 *gallon water*

Prepared as directed for dry, still mead but store at least two or three years in bottle before sampling.

SWEET, STILL MEAD II

6 lb. *heather honey*
mead yeast

1 *gallon water*

The sweetness of a mead prepared by method I above is uncontrollable and the resulting wine may be excessively sweet. In this formula the sweetness is controlled. Ferment a mixture of 3 lb. of honey and 1 gallon of water as directed for Dry, Still Mead and when dry stir in 1 lb. of honey previously warmed to blood heat. Allow fermentation to continue and, when dry, repeat the process with a further 1 lb. of honey. If the wine again ferments to dryness, repeat once more when very little further fermentation should occur. Keep the jar or cask in a cold cellar for a month and syphon off the liquid, without disturbing the yeast deposit, into a clean jar or cask. Fill completely, bung down lightly and store for one year, driving in the bung after the first two weeks and waxing over afterwards. At the end of this storage period, syphon off again, bottle, cork and wire and keep at least three years before sampling. Five or even seven years' storage in the bottle is desirable with sweet meads.

METHEGLIN I

6 lb. honey	1 gallon water
1 oz. hops	$\frac{1}{2}$ oz. root ginger
mead yeast	

Gently simmer the hops and bruised ginger in the water for two hours, skimming if necessary, and adding more water to restore the original volume. Strain the hot liquid on to the honey, stir until dissolved and when cool add the yeast culture. Continue as directed for Sweet, Still Mead I.

The ginger may be omitted if not liked.

METHEGLIN II

2 sprigs each of marjoram, balm and sweet briar	
$\frac{1}{4}$ oz. each of cloves, mace, cinnamon and bruised ginger	
16 lb. honey	3 gallons water
mead yeast	

Simmer all the ingredients together (except for the yeast and honey) for fifteen minutes, strain and then allow to cool slightly. Dissolve the honey in the warm liquid and when cooled further, add the yeast culture. Continue as directed for Sweet, Still Mead I.

METHEGLIN III

16 lb. honey	3 gallons water
1 blade of mace	$\frac{1}{2}$ oz. cinnamon
4 cloves	$\frac{1}{4}$ oz. root ginger
mead yeast	

Gently simmer the water and spices together for one hour, then strain while still warm on to the honey. Stir the mixture vigorously and when cool add the yeast. Continue as directed for Sweet, Still Mead I.

METHEGLIN IV

6 lb. *heather honey*
2 *cloves*
mead yeast

1 *gallon water*
 $\frac{1}{4}$ oz. *cinnamon bark*

Add the spices to the honey-water and prepare as directed for Sweet, Still Mead I or II.

METHEGLIN V

6 lb. *honey*
 $\frac{1}{3}$ oz. *caraway seeds*

1 *gallon water*
mead yeast

Prepare as directed for Sweet, Still Mead I and add the caraway seeds just before the air lock is inserted.



Ales and Beers

Commercial ales and beers are made basically from malted barley, hops, water and yeast. See warnings on page ix.

Baker's or brewer's yeast are suitable for making beers; the amount to be added is given on page 26.

These beers have a lower alcoholic content than wines and in general are meant to be drunk shortly after bottling since they are naturally conditioned in the bottle. Prolonged storage would allow the generation of excessive gas pressures and the loss of sweetness. The beers are ready to drink if gas escapes on loosening the stopper of one of the stored bottles. Complete directions will be given with each recipe.

BEETROOT BEER

1 <i>lb. beetroot</i>	1 <i>pint stout</i>
1 <i>breakfast cup white sugar</i>	

Wash the beetroot and slice into a bowl. Sprinkle on the sugar and leave twenty-four hours. Strain, add the stout, bottle, cork and tie down. Ready after seven to fourteen days.

DANDELION BEER

$\frac{1}{2}$ <i>lb. young dandelion plants</i>	1 <i>gallon water</i>
1 <i>lb. demerara sugar</i>	$\frac{1}{2}$ <i>oz. root ginger</i>
1 <i>lemon</i>	1 <i>oz. cream of tartar</i>
<i>yeast</i>	

Dig up complete young plants in the spring, wash well and remove most of the fibrous roots without damaging the thick tap roots. Boil in the water with the bruised ginger and lemon rind (no white pith) for ten minutes. Strain, pour the liquid on to the sugar and cream of tartar; stir until dissolved. When cool, add the yeast and lemon juice and leave covered in a warm room for three days. Strain and bottle in strong, screw stoppered beer bottles.

Said to be good for stomach disorders as well as being a pleasant drink.

GINGER BEER

1 <i>oz. root ginger</i>	1 <i>gallon water</i>
$\frac{1}{2}$ <i>oz. cream of tartar</i>	1 <i>lemon</i>
1 <i>lb. white sugar</i>	<i>yeast</i>

Put the bruised ginger, cream of tartar, sugar and lemon rind (no white pith) in a bowl and cover with the boiling water. Stir vigorously until the sugar is dissolved and allow to cool. Add the yeast and lemon juice, cover with a thick cloth and

leave twenty-four hours in a warm room. Remove the scum, syphon off the liquid without disturbing the sediment, and bottle, cork and wire as quickly as possible. The beer is ready to drink in two to three days' time.

HOP BEER I

$\frac{1}{2}$ oz. hops	1 gallon water
1 lb. white sugar	$\frac{1}{2}$ oz. root ginger
yeast	

Boil the sugar, hops and bruised ginger in the water for an hour, adding boiling water to replace any lost. Strain and when cool add the yeast. Leave twenty-four hours, syphon off the liquid without disturbing the yeast deposit, bottle, cork and wire. Ready to drink in two days.

The colour can be improved by using demerara in place of white sugar and by adding a little burnt sugar or caramel colouring.

1 oz. cracked maize may also be added during the initial boiling.

HOP BEER II

1 lb. malt extract	1 gallon water
$\frac{1}{2}$ oz. hops	yeast
1 lb. sugar (white or brown)	

Boil the malt extract, hops, sugar and water together for ninety minutes, adding more water to restore the original volume, then strain through muslin into a jug. The prolonged boiling gives the beer a pleasant amber colour. When this liquid is cool, add the yeast and keep covered in a warm room for three days. Syphon off the beer, avoiding the yeast deposit and bottle. Add a lump of sugar to each bottle, cork and wire or tie down. It is ready to drink after about a week.

HOREHOUND BEER

1 oz. <i>horehound</i>	1 gallon <i>water</i>
1 oz. <i>gentian root</i>	1 oz. <i>calmus root</i>
1 <i>lemon</i>	$\frac{1}{4}$ oz. <i>capsicums</i>
1 $\frac{1}{2}$ lb. <i>demerara sugar</i>	<i>yeast</i>

Put the horehound, bruised capsicums, lemon peel (no white pith), gentian and calmus roots into a bowl. Pour over the boiling water and leave overnight. Heat, strain on to the sugar and stir until it dissolves. Allow to cool and add the yeast. Cover the bowl with a thick cloth and leave in a warm room for three days. Syphon off the liquid without disturbing the yeast deposit, bottle, cork and wire. Ready for drinking after a week.

This is said to make an excellent tonic beer, but it is rather bitter for many tastes and may need dilution with soda water.

NETTLE BEER I

2 lb. <i>young nettles</i>	1 gallon <i>water</i>
2 <i>lemons</i>	1 oz. <i>cream of tartar</i>
1 lb. <i>demerara sugar</i>	<i>yeast</i>

Cut off the nettle roots and discard; rinse the tops, drain and boil in the water for fifteen minutes. Strain into a bowl containing the lemon peel (no white pith) and juice, sugar and cream of tartar. Stir vigorously and when cool add the yeast; keep covered with a thick cloth in a warm room for three days. Strain, bottle, cork, wire and keep a week before drinking.

NETTLE BEER II

1 gallon fresh young nettle tops	1 gallon water
$\frac{1}{2}$ lb. malt extract	$\frac{1}{2}$ lb. white sugar
1 oz. hops	2 oz. sarsaparilla
$\frac{1}{2}$ oz. ginger	yeast

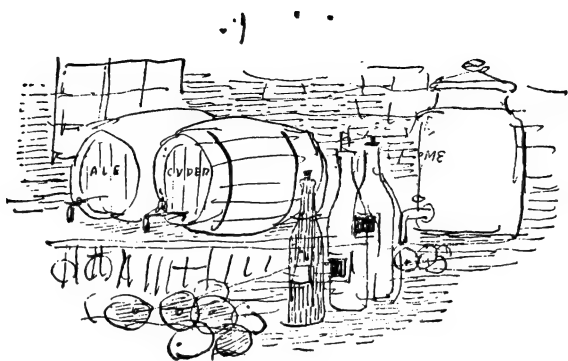
Boil all the ingredients (except the sugar and yeast) for one hour, keeping the volume constant with added water, and then strain over the sugar in a bowl. Stir vigorously and when cool add the yeast. Continue as directed for Nettle Beer I.

TREACLE ALE

1 lb. golden syrup	1 gallon water
$\frac{1}{2}$ lb. black treacle	yeast

Melt the syrup and treacle in the boiling water and when cool add the yeast. Cover the bowl or jug with a thick cloth and keep in a warm room for three days. Syphon off the liquid without disturbing the yeast deposit, and bottle. Cork, wire and keep several days before drinking.

In another recipe $\frac{1}{2}$ oz. powdered ginger and the rind of a lemon (no white pith) are also added to the boiling water.



Ciders and Perries

Cider and perry have an alcoholic content similar to beers and in some cases are subject to Excise duty (p. ix). Further, they are stored for a longer period after fermentation. Although these beverages can be made from windfall dessert fruit, better results will be obtained from cider apples and perry pears of the South-West. Where these are available, fruit of the mild sharp or bitterssharp type should be used. Thus for cider, Kingston Black, Foxwhelp, Crimson King and Langworthy or a blend of Stoke Red and Sweet Alford. For perry, Moorcroft, Oldfield or Huffcap are very suitable. If only non-cider varieties are available, Worcester Pearmain, Cox's Orange Pippin, Russets and similar medium acid apples are advisable.

Unlike soft fruits, apples and pears must be minced or crushed and then pressed before the pure juice can be extracted; any other method will involve some dilution with water. If more than a few gallons of cider are made, the task can be made less laborious if a small commercial press (ranging in price from £15 to £50) is used, or one devised from heavy pieces of timber and a car jack (see p. 7). Alternatively a local cidemaker might be willing to sell some freshly pressed juice for a few shillings.

For those who have a large quantity of surplus apples each year, suitable methods of cider-making are given in CIDER-MAKING, by A. Pollard and F. W. Beech, *Rupert Hart-Davis*, 1957.

PURE JUICE CIDER

Dessert or Cider Apples

Crush the washed fruit in a tub with a heavy piece of timber, then press out small quantities at a time in a boiled, new hessian sack. If a hand-press is not available an old-fashioned mangle with wooden rollers, laid horizontally over a tub, is an effective substitute. Fill jars completely with the juice and stand on a tray in a warm room. Fermentation starts after a few days, as shown by the froth that pours over the sides of the jars. Top up, if necessary, with any surplus juice kept in a bottle on the tray. When frothing ceases, clean the neck and sides of the jar, then insert an air lock or loose fitting bung. Fermentation will cease after several weeks, *i.e.* gas bubbles are no longer formed, and the cider should be tasted. If completely dry, treat as directed in paragraphs 3, 4, 5b and 6 of *Fruit Wines*, depending on the type of cider required (pp. 26-29). Should the cider be still sweet, the fruit must have been low in nutrients, *i.e.* it came from old, unmanured orchards. Such ciders should be treated as described under FERMENTATION on p. 12, so that fermentation may be brought to completion. Then treat as detailed in paragraphs 3, 4, 5b or 6.

COTTAGE CIDER I

Dessert or cider apples

raisins

Campden tablets

water

white sugar

yeast

Wash the apples and grate or mince them. The grater should be made of aluminium or plastic and the mincer of stainless steel or covered with baked enamel; the ordinary zinc plated meat mincer must **not** be used. Squeeze the pulp in small batches through a thick cloth—knitted nylon is extremely good for this—running the juice into a tall jug. Shake the residuc into a bowl and mix with approximately the same volume of warm water. Leave for one hour, then squeeze out again, adding this extract to the first. Measure the volume of the combined extracts; to every gallon, add three crushed Campden tablets and a handful of chopped raisins, stir well, and return to the jug. Cover with a thick cloth and leave three days, stirring the contents twice daily. Add the yeast and keep the jug in a warm room; fermentation may not start for several more days, since the yeast is restrained for a time by the sulphur dioxide from the Campden tablets that are added to kill any bacteria, derived originally from the fruit. Once fermentation starts, leave until gas bubbles are no longer formed and then strain through organdie or very fine muslin.

Pour the liquid into large jars, fill them and cork. Leave in a cold room for several weeks or until the cider becomes fairly clear. Syphon off the cider leaving the yeast deposit behind, dissolve $\frac{1}{4}$ lb. of sugar in every gallon of cider, bottle in champagne bottles, cork and tie down. Store the bottles on their sides in a cool cellar for three months, when the cider should be sparkling.

COTTAGE CIDER II

10 lb. windfall apples	1 gallon water
1 lb. raisins	1 lb. white sugar
5 Campden tablets	yeast

Wash the fruit and slice with a stainless steel or silver plated knife. Throw into a jug with the crushed Campden tablets and coarsely chopped raisins. Dissolve the sugar in the water and pour into the jug. Leave three days, cover with a cloth, stirring twice daily, then add the yeast. Put in a warm room until gas bubbles are no longer formed. Pour off the supernatant liquid, squeeze the pulp through a thick cloth and add this liquid to that already poured off. Continue as directed in the last paragraph of the previous recipe.

SUMMER CIDER

2 lb. windfall apples	1 gallon water
1 oz. root ginger	$\frac{1}{2}$ teaspoon cinnamon
$\frac{1}{2}$ teaspoon cloves	$1\frac{1}{2}$ lb. white sugar
yeast	

Wash the apples and, without peeling, grate into a jug. Add the cold water and yeast, cover with a thick cloth and leave in a warm room for one week, stirring daily. Strain and add the sugar, cloves, cinnamon and bruised ginger. Stir vigorously until the sugar dissolves, and leave overnight. Strain through organdie and bottle, using strong screw stopper bottles, screwing the stoppers down tightly. After two days, and thereafter at daily intervals, loosen the stoppers momentarily to assess the amount of gas formed. When this is satisfactory, the cider is ready for drinking.

PURE JUICE PERRY

Perry pears

Crush the fruit in a wooden tub with a heavy piece of timber; small quantities may be grated or minced (note the warning given under Cottage Cider I). Leave the pulp overnight covered with a thick cloth and then press out the juice by one of the methods suggested for apples.

Continue as directed in the recipe for Pure Juice Cider (p. 93).

COTTAGE PERRY

Substitute perry pears or cull dessert pears for windfall apples in the recipe for Cottage Cider II and use the same directions.

NOTE ON DRAUGHT CIDER OR PERRY

The recipes in this section advocate bottling the cider or perry, to avoid any danger of it turning vinegary during storage. Unlike strong wines, these two beverages do not possess sufficient alcohol to withstand the ravages of the vinegar bacteria when exposed to air. Hence no cider or perry should be left in a half-filled jar or cask for more than two or three weeks and never in a warm room. This precaution applies equally well to small barrels of the commercial products.

If the cider is stored in a jar or cask instead of bottles, and is ready for drinking, it is advisable to fill most of it into clean screw stopper bottles, leaving in the barrel only sufficient for two or three weeks supply. The bottles, stored in a cool room, can be drunk at leisure, and if a sweet cider is desired, then sugar may be added to taste when a bottle is opened.



Liqueurs

In view of the present price of brandy, gin, rum and whiskey, these recipes are given mainly for their historic interest. Some of the recipes are at least 100 years old and the amounts of the ingredients have not been modified in any way. Should anyone wish to try one of them, the quantities quoted should be reduced in proportion to the quantity of spirits available.

In nearly all these methods the fruit is steeped in the sugar and spirit to extract flavour and colour. The high concentration of alcohol prevents any fermentation. After a varying period of soaking, the liquid is strained through a muslin bag or filtered clear, bottled, and allowed to mature for a period to mellow the flavour. The sugar, besides acting as a sweetening agent, also confers the necessary smoothness to the drink.

Keep these liqueurs away from strong light during the steeping and storage.

CHERRY BRANDY

1 lb. <i>morello cherries</i>	1 pint <i>brandy</i>
$\frac{1}{2}$ lb. <i>castor sugar</i>	12 <i>almonds</i>

Put alternate layers of clean, dry fruit and castor sugar in a dry Kilner jar. Screw down and shake at times for three days, then add the brandy and blanched almonds. Fasten down tightly and leave at least three months before straining (or filtering) and bottling.

DAMSON GIN

2 quarts <i>damsons</i>	$\frac{1}{2}$ gallon <i>gin</i>
$\frac{1}{2}$ gallon <i>sherry</i>	2 lb. <i>lump sugar</i>

Wash and wipe the sound damsons and prick them all over with a silver-plated or stainless steel fork. Put with the other ingredients in a jar, cork and shake well every day for three weeks. Strain and bottle. The sherry can be omitted.

EGG NOGG OR LONG LIFE

6 <i>fresh eggs</i>	2 <i>lemons</i>
1 <i>gill cream</i>	1 lb. <i>honey</i>
$\frac{1}{2}$ <i>bottle rum or brandy</i>	

Break the eggs into a clean basin and beat up with warmed honey and lemon juice, followed by a tablespoonful of grated lemon rind. Still beating, add the cream and spirit. Pour into glasses and serve at once.

The original recipe suggested the mixture should be bottled but the cream separates on storage, forming a solid mass on the top of the bottle.

This product is not the same as Advocaat. It is brown in colour and tends to separate on storage. Possibly it is better drunk as soon as made, rather than be kept for any length of time.

MILK PUNCH

6 oranges	6 lemons
1 bottle rum or brandy	2 lb. castor sugar
1 gallon water	2 lb. lump sugar
1 quart new milk	

Pare the oranges and lemons as thin as possible to avoid the pith or rub with the lump sugar to extract as much colour as possible. Steep the cut-up peel or flavoured lump sugar with the rum or brandy for twenty-four hours. Squeeze the fruit on to all the sugar and add to it the water and boiling milk. Add the rum (or brandy) and stir until the sugar is dissolved. Run through a jelly bag until perfectly clear, bottle and cork tightly immediately.

NOTE: these quantities are more suitable for a punch to be drunk within a few days. If it is to be kept for a longer period do not add the water.

MIXED FRUIT CORDIAL I

1 lb. strawberries	1 lb. cherries
1 lb. raspberries	$\frac{1}{2}$ lb. blackcurrants
brandy	sugar candy

Clean the fruit, put into a basin and stand in a saucepan half-full of water and cover. (A double saucepan can be used instead.) Bring the water to the boil and steam the fruit until the juice flows freely. Strain the fruit through muslin and then pass the juice through a jelly bag. Leave to drip, preferably overnight. Measure the juice and to each pint add half pint of brandy and 2 oz. sugar candy. Stir until the candy is dissolved and leave the mixture covered several days before straining and bottling. Cork securely.

MIXED FRUIT CORDIAL or
RATAFIA DES QUATRE FRUITS

5 lb. morello cherries
5 lb. duke cherries
brandy
white sugar

5 lb. currants (red or black)
5 lb. raspberries

All the fruits must be ripe, dry and free from stalks. Break them up separately and then mix in an earthenware bowl. Leave the mixed pulp for five hours, stirring occasionally and then press through a fine sieve. To every pint of juice add one pint brandy and $\frac{1}{2}$ lb. of sugar, mix well and put the mixture in a Kilner jar. Store in a dark cupboard and shake once daily for a month. Leave undisturbed for a further period until the liquid clears then drain off this clear liquid without disturbing the deposit. Pass the remainder through a jelly bag several times until it is also clear and combine the clarified liquid with that drawn off earlier. Bottle and cork tightly.

ORANGE GIN

8 lemons

8 *Seville oranges*

3 lb. sugar candy or brown sugar 1 gallon gin

Peel the rinds very thinly to avoid the white pith and place in a two-gallon jar with the sugar candy and gin. Let it remain one week, stirring daily, then strain off and bottle. This liqueur should be kept two years before sampling.

These quantities could be reduced to $\frac{1}{8}$ or $\frac{1}{16}$ if this recipe is tried.

ORANGE WHISKEY

Make in the same way as Orange Gin substituting one gallon of whiskey for the gin.

RASPBERRY LIQUEUR

1 lb. raspberries	1½ pints water
1 lb. white sugar	1 quart gin

Put the gin and fruit in a Kilner jar, screw down tightly, and keep near the fire for a few days but do not let it get too warm. Prepare a syrup by boiling the sugar and water together, skimming it until scum no longer forms. Strain the gin and fruit through muslin and add the cold syrup to the liquid. Filter the mixture or allow to drip through a jelly bag, bottle and cork tightly.

SLOE GIN I

1 lb. sloes	1½ pints gin
3 oz. white sugar	

Stalk and clean the fruit, then prick with a silver fork. Pack the fruit in a Kilner jar, add the sugar and gin and screw down tightly. Store three months in a dark cupboard, inverting the jar occasionally. Strain, bottle and cork.

SLOE GIN II

1 lb. sloes	1½ pints gin
3 oz. castor sugar	

Put alternate layers of clean, pricked sloes and sugar in a Kilner jar and leave until the sugar is dissolved. Add the gin and shake every other day for two or three months. Strain, bottle, cork and keep for a year.

WHISKEY OR CURRANT CORDIAL

1 lb. <i>whitecurrants</i>	1 <i>lemon</i>
$\frac{1}{2}$ oz. <i>grated ginger</i>	1 <i>quart whiskey</i>
1 lb. <i>lump sugar</i>	

Strip the currants from their stalks, wash and drain the fruit and then place in a large jug. Add the lemon rind (free from white pith), ginger and whiskey. Cover the jug, let it stand twenty-four hours, and strain through clean organdie. Add the lump sugar to the liquid and let it stand a further twelve hours. Then bottle and cork tightly.

Another recipe headed Ginger Cordial uses the same quantities of these ingredients, except that the sugar and ginger are added to the strained currant juice and whiskey and left for several months with occasional shaking before the final straining and bottling.



Syrups and Cordials

Unlike wines, beers and liqueurs described in the preceding chapters, syrups and cordials should not contain any alcohol. (The two words syrups and cordials mean the same thing and for the rest of this chapter they will be referred to as syrups.) The yeasts naturally present on the raw materials must be killed or their growth prevented, otherwise the syrups will ferment in the bottle which may then explode with violence.

These drinks are valuable for preserving the nutritive properties of fruits, etc., and are thus especially suitable for children. In summer they can be diluted with iced- or soda-water or in winter with hot water. Children who will not drink milk by itself can often be persuaded to take it if it is flavoured with a fruit syrup. Care is needed to prevent the milk from curdling, so keep the cold milk stirred briskly while slowly

adding the syrup. Usually one part of syrup is added to five or six parts of milk. Fruit syrups can also be used in puddings, jellies and ices or else poured over ice cream to give extra flavour and nourishment.

Two methods of preparing juice for syrup making will be described and the method used will depend on the facilities available in the kitchen. Fruits for syrup making should be over-ripe, free from mould and washed clean. Remove any leaves or largish stems.

Hot Method

- (a) Place the fruit in a basin and bruise well with a wooden spoon or pulper. Add about a dessertspoonful of water and stand the basin in a saucepan half full of water and cover with a lid. Simmer gently until the juice flows freely and, if necessary, refill the saucepan with hot water to prevent it boiling dry. When the fruit has been heated sufficiently, repulp again.

Alternatively, the fruit may be heated with a little water in an enamelled or aluminium saucepan. With this method, the fruit should be kept stirred and mashed with a wooden spoon as there is a danger of it sticking. Once the mixture comes to the boil, only keep it over the heat for a few more minutes.

- (b) Squeeze the pulp in a jelly bag or through a thick cloth and to each pint add $\frac{3}{4}$ lb. to 1 lb. white sugar. Stir until the sugar dissolves and, if necessary, re-strain through organdie or several layers of muslin.
- (c) The syrup must now be bottled as soon as possible and sterilised to kill the yeasts present. The safest method is by heating the bottles of syrup in hot water. Fill the bottles to leave 1½ in. to 2 in. below the base of cork or screw stopper, depending on the size of the bottle. If corks are used wire or tie them down strongly or else they will be forced out during heating. The corks or stoppers must be sterilised

before using by submerging them in boiling water for fifteen minutes. Put the bottles in a deep pan fitted with a false bottom (*i.e. a fish-kettle*) and pour in sufficient water to come to the bases of the corks. Heat the water to simmering point and maintain for twenty minutes. Take the bottles out and stand them on a plain wooden table to cool. Dip the tops of the bottles in melted paraffin wax or brush with melted beeswax.

Cold Method

Syrups made by this method are fresher in flavour than hot processed syrups but they are slightly more difficult to prepare.

- (d) An alternative method for larger quantities of fruit is to use a commercial pectin-destroying enzyme (PECTOZYME, sold in 5 lb. tins by *A.B.M. Industrial Products Ltd.*, Woodley, Stockport, Cheshire). Smaller quantities may be purchased from most wine-makers' sundriesmen. Crush the fruit in a bowl and mix with it $\frac{1}{4}$ oz. of Pectozyme for each 8 lb. of pulp and leave overnight. For blackcurrants use $\frac{1}{4}$ oz. for each 5 lb. and leave two or three days, mixing once each day. The bowl should be covered with a thick cloth when the enzyme is working to keep out wasps and flies. The pulp is then squeezed out through thick cloth, sweetened, bottled, corked and sterilised as described in paragraph (c).

Some fruits need the addition of citric acid as the syrups made from them seem to be a little insipid; where necessary it will be specified in the recipe. All syrups should be kept in the dark and as cold as possible to retain colour and flavour. Most syrups tend to throw a sediment of particles too fine to be retained in the straining cloths. The material forming the sediment is perfectly wholesome, but if a clear product is required, the syrup can be decanted from the bottle when used. No syrup should be kept for more than a year as flavour slowly deteriorates and in any case fresh fruit is then once more available.

APRICOT SYRUP

6 lb. *apricots*

3 quarts *water*

3 lb. *white sugar*

Boil the sugar and water together to make a syrup and remove any scum that forms. Drop in the stoned apricots and simmer until they are tender, replacing any water boiled away. Remove the apricots and add a sprig of flowering clary (*Salvia officinalis*) and simmer for a few more minutes. Strain, bottle and sterilise as detailed in paragraph c (p. 104).

The apricots can be used afterwards in a pie.

BLACKBERRY SYRUP

Stew the berries very gently in a double saucepan for an hour with water, using half a pint of water for every 6 lb. of berries. Squeeze out the juice, add 1 lb. of sugar to each pint of juice and simmer for ten minutes. Allow to cool, bottle, cork and sterilise as detailed in paragraph c.

If preferred, a wine glass of brandy or a fruit liqueur may be added before bottling. Alternatively, add $\frac{1}{2}$ oz. of whole cloves in a muslin bag during the second simmering and remove before bottling.

BLACK CHERRY SYRUP

Prepared by the hot or cold processing methods given in paragraphs a to d (pp. 104-105).

BLACKCURRANT SYRUP

Either prepared as directed for Blackberry Syrup but using one pint of water to each 3 lb. of fruit or by the cold process method given in paragraph d.

DAMSON SYRUP

Prepared as directed in paragraphs **a** to **d**.

ELDERBERRY SYRUP

Prepared as directed in paragraphs **a** to **d**. In one recipe six cloves and a small piece of root ginger are added to each quart of unsweetened juice and simmered for ten to fifteen minutes. In another, a teaspoonful of allspice, $\frac{1}{2}$ oz. cinnamon stick and $\frac{1}{4}$ oz. mace are used instead.

ELDERFLOWER SYRUP

Collect elderflowers in full blossom on a dry day and shake the florets into a preserving pan—approximately a quart is the minimum quantity required. Just cover with water, simmer for thirty minutes, making good any water boiled away, then squeeze out the juice and return it to the pan. Add $\frac{3}{4}$ lb. sugar for each pint of liquid and simmer again for ten minutes, skimming if necessary. Allow to cool, bottle, cork and sterilise as directed in paragraph **c**.

The syrup can either be used as a base for a cooling summer drink or else for making water ices.

FRUIT SYRUP

Use equal quantities of blackcurrants, strawberries and raspberries and prepare using either the hot or cold process methods as directed in paragraphs **a** to **d**.

GINGER CORDIAL

SYNTHETIC I

1 lb. white or demerara sugar	1 pint water
1 tablespoon honey	30 drops essence of ginger

Simmer the sugar and water to dissolve, add the honey and stir until this also dissolves. Allow to cool, add the essence, bottle and cork.

Use one to two tablespoonfuls in a tumbler of hot water.

GINGER CORDIAL

SYNTHETIC II

2 lb. white sugar	3 pints water
10 drops essence of lemon	1 oz. burnt sugar
3 drams each, tinctures of ginger, orange and capsicum	
1 oz. citric acid	

Put the sugar in a bowl, pour on the boiling water and stir until the sugar dissolves. Allow to cool and add the tinctures, essence and burnt sugar, then stir. Dissolve the acid in the cold mixture and bottle.

Use one tablespoonful of cordial in a glass and fill up with hot water.

GRAPE SYRUP

Wash 16 lb. of well-coloured grapes, drain and stem them into a saucepan. Cover with water and simmer until the juice is well extracted, stir well during this heating and make good any water boiled away. Pour into a jelly bag and leave overnight to drip; do not squeeze or else the juice will be cloudy. To each quart of juice add 1 lb. of white sugar, boil for thirty minutes, skimming and adding more water if necessary, then pour into heated bottles. Seal with sterilised corks immediately. Alternatively, the sweetened juice need not be boiled but sterilised as directed in paragraph c.

Quarter fill a tumbler with the syrup and dilute with hot or iced water depending on the prevailing weather.

LEMON SYRUP

6 large lemons	2 pints water
4 lb. white sugar	$\frac{1}{2}$ oz. citric acid

Dissolve the sugar in the slightly warmed water, add the lemon juice, finely grated rind and citric acid. Stir vigorously, leave twelve hours, strain, bottle and sterilise as directed in paragraph c.

LEMON GINGER SYRUP

2 oz. root ginger	1 quart water
white sugar	1 lemon

Bruise the ginger and put into a saucepan with the water and thinly sliced lemon rind. Bring to the boil and simmer gently for forty-five minutes, making good any water boiled away. Strain and to every pint of liquid add 1 lb. of sugar and the juice of one lemon. Bottle, seal and sterilise as directed in paragraph c.

Put a tablespoonful of syrup in a tumbler and fill up with hot or iced water as required. Decorate with a slice of lemon.

LEMON AND ORANGE CORDIAL

Lemons
6 lb. white sugar
 $\frac{1}{2}$ oz. citric acid

oranges
4 pints water

Prepare a syrup from the sugar and water and boil for five minutes, with the thinly peeled rind of one orange and one lemon. Squeeze equal numbers of lemons and oranges until there is the same volume of juice as of syrup. Mix the two liquids together, dissolve the citric acid in it, remove the peel and bottle, cork and sterilise as directed in paragraph c.

LOGANBERRY SYRUP

Prepared as directed in paragraphs a to d.

MULBERRY SYRUP

Prepared as directed in paragraphs a to d.

NETTLE SYRUP

2 lb. young nettle tops
white sugar

4 pints water

Gather young nettle tops, wash and drain. Boil in a saucepan with the water for one hour, replace any water boiled away, then strain and to each pint of juice add 1 lb. sugar. Stir and heat to dissolve, then bottle, cork and sterilise as directed in paragraph c.

This syrup is said to be valuable as a blood purifier and is used with soda water to make a cooling drink.

ORANGE SYRUP

6 oranges

4 lb. white sugar

3 pints water

1 oz. citric acid

Boil the sugar, water and grated orange peels together in an enamelled saucepan for ten minutes. Leave overnight, then add the acid and orange juice, strain, bottle, cork and sterilise as directed in paragraph c.

PEPPERMINT CORDIAL

SYNTHETIC

Use the same quantities and method given for Ginger Cordial—Synthetic I, substituting peppermint essence for ginger essence.

RASPBERRY SYRUP

Prepared as directed in paragraphs a to d.

ROSEHIP SYRUP

2 lb. ripe rosehips

1 lb. white sugar

4½ pints water

Mince the clean rosehips and drop immediately into a saucepan containing 3 pints of boiling water. Bring to the boil straight away, then remove the saucepan from the stove and leave fifteen minutes. Pour through a scalded jelly bag and allow to drip. Return the pulp to the saucepan, add the remaining 1½ pints of water, re-boil and allow to stand without further heating for another ten minutes, then drain through the jelly bag as before. Combine the two extracts in a clean enamelled saucepan and simmer until it is reduced to approximately 1½ pints. Add the sugar and re-boil a further five minutes. Bottle (use small bottles), cork and sterilise as directed in paragraph c.

This syrup, like blackcurrant syrup, is an excellent source of vitamin C. A dessertspoonful a day is a recommended dose. The flavour can be varied by mixing with orange or lemon syrup and diluting with soda water when required.

ROSE SYRUP

1 lb. *rhubarb*
1 lb. *white sugar*

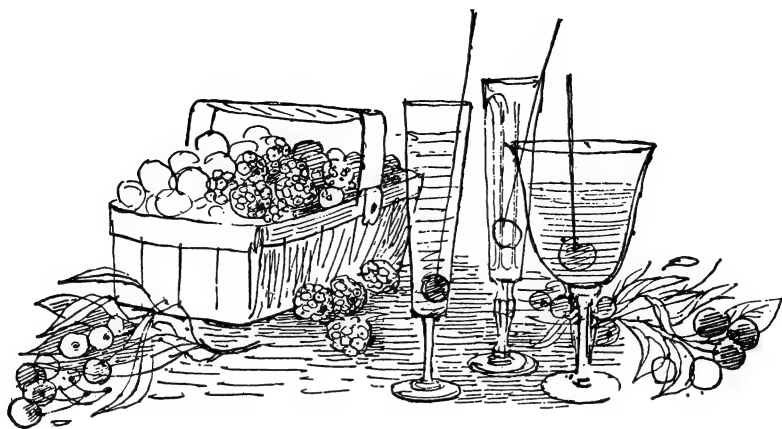
1 pint *water*
10 *red roses*

Clean and cut the rhubarb into chunks and simmer in the water for twenty minutes, mashing with a wooden spoon to assist the extraction of the juice. Strain, add the sugar and the rose petals. Simmer gently for fifteen minutes, strain and boil until the syrup thickens. Pour into heated bottles (nearly fill), seal with sterilised corks, wire and wax over the tops.

To use, put a teaspoonful of syrup in a milk beaker and add a tablespoonful of boiling water. When cold, fill up with milk. This is said to be a good cure for sore throats and an excellent pick-me-up.

STRAWBERRY SYRUP

Prepared as directed in paragraphs a to d.



Drinks for hot days or cold nights

A hot drink is very welcome on a cold night, especially when the family is not feeling in the best of spirits. Some of the spiced wines or the syrups given in earlier chapters may be diluted with hot water and, if necessary, sweetened with a little sugar or honey. However, when days are hot and humid a cold refreshing drink is needed. Dry, sparkling wines served ice cold are excellent and if a non-alcoholic drink is preferred, then suitable syrups can be diluted with water, lemonade or ginger ale, and chilled. The glass should be decorated with a twist of lemon peel, a sprig of mint, borage or some sweet-smelling herb.

In addition to these drinks prepared from carefully hoarded bottles in the cellar, there are a number of non-alcoholic drinks which can be prepared at short notice and drunk straight away. They have been grouped into hot and cold drinks for ease of reference.

Cold drinks

DANDELION TEA

<i>3 quarts dandelion petals</i>	<i>1 gallon water</i>
<i>2 lb. sugar</i>	<i>2 lemons</i>

Boil the flowers, water and lemon peel together for half an hour, adding more water if necessary to make up the original volume. Strain through muslin and add the sugar and lemon juice. When cold, ice and serve.

Another recipe uses the washed tap roots of young plants instead of the flowers.

OATMEAL OR HARVESTER'S DRINK

<i>½ lb. oatmeal</i>	<i>1 gallon water</i>
<i>1 lb. sugar</i>	<i>1 lemon</i>
<i>1 orange</i>	

Mix together in a bowl the oatmeal, sugar, fruit juice and grated rinds with a little warm water. Bring to the boil for a few minutes, then remove from the heat and add the remainder of the water, stirring the mixture occasionally until it is cold. Strain and serve.

ORANGE PUNCH

<i>1 cup orange juice</i>	<i>½ cup lemon juice</i>
<i>1 pint soda water</i>	<i>1 pint ginger ale</i>
<i>sugar syrup to taste</i>	

Mix in a jug and serve in glasses, each containing an ice cube and thin slices of orange.

PUSSYFOOT

<i>1 small piece orange</i>	<i>1 small piece lemon</i>
<i>4 drops grenadine syrup</i>	<i>1½ tablespoons lemon</i>
<i>1½ tablespoons orange squash</i>	<i>squash</i>
<i>soda water</i>	

Put the pieces of fruit in a tumbler, add the grenadine and leave for a few minutes. Measure in the orange and lemon squash and add soda water to taste. Serve after chilling.

This makes a drink for one person. It is even more pleasant if made in a one-pint tumbler, a dessertspoonful of gin added before filling the tumbler with soda water.

STRAWBERRY DRINK

<i>Strawberries</i>	<i>water</i>
<i>1 lemon</i>	<i>white sugar</i>

Mash the strawberries and pass through a hair sieve. To each quart of pulp add the same amount of water together with 4 to 8 oz. of sugar and the lemon juice and grated rind. Stir until the sugar dissolves, then strain again and serve with an ice-cube in each glass.

The aroma of the strawberries will be intensified if a teaspoonful of kirsch or brandy is added to the pulp and the mixture left for about thirty minutes, before adding the remaining ingredients. The amount of alcohol thus added is negligible.

Hot drinks

APPLE TODDY

<i>2 large apples</i>	<i>1 pint water</i>
<i>1 tablespoon honey</i>	<i>$\frac{1}{2}$ teaspoon bicarbonate of soda</i>

Wipe the apples and cut up roughly without peeling. Place the pieces in a casserole with the water, put on the lid and simmer slowly until the apples are thoroughly softened. Press through a sieve to pulp the apples, add the honey and bicarbonate of soda and sip slowly while hot.

This is a children's drink and the bicarbonate of soda is added to make the drink fizz which probably makes it more interesting for young folk.

CIDER TODDY

<i>1 glass dry cider</i>	<i>1 dessertspoon honey</i>
<i>$\frac{1}{4}$ oz. root ginger</i>	<i>lemon peel</i>

Heat the cider, bruised ginger and a twist of lemon peel in an aluminium, stainless steel or enamelled saucepan until bubbles just begin to rise in the liquid. Quickly remove from the heat, stir in the honey and strain into a warmed glass. This is excellent for drinking just before bedtime. Drinking it in bed and taking two Aspirins is said to prevent a cold. Even if this is a false hope it certainly induces sleep.

HOT LEMON TODDY

1 <i>lemon</i>	1 <i>dessertspoon honey</i>
1 <i>teaspoon glycerine</i>	<i>water</i>

Put the lemon juice, glycerine and honey in a warmed tumbler and fill up with boiling water. Serve with a thin twist of lemon peel floating on the surface.

RHUBARB CORDIAL

2 <i>lb. rhubarb</i>	1 <i>quart water</i>
4 <i>oz. white sugar</i>	$\frac{1}{4}$ <i>oz. root ginger</i>
2 <i>cloves</i>	

Gently simmer the chopped rhubarb, sugar, cloves and bruised ginger in a saucepan until the rhubarb is soft, replacing any water that boils away. Strain well and serve from a warmed glass jug decorated with a few mint leaves.

TREACLE POSSET I

2 <i>tablespoons treacle</i>	1 <i>pint milk</i>
1 <i>lemon</i>	

Heat the milk until near boiling point, then add the treacle and lemon juice. Boil slowly until the curds separate, strain and serve hot as a remedy for a cold.

TREACLE POSSET II

For each person use

1 *teaspoon black treacle*

1 *glass milk*

Heat the milk and dissolve the treacle in it, serve hot. Black treacle contains large amounts of the B group of vitamins and the drink is an excellent preventive measure against colds, especially if taken each evening during the winter before retiring to bed.

WINTER CORDIAL

4 *dessertspoons fine oatmeal*

1 *quart water*

$\frac{1}{2}$ *teaspoon ground ginger*

1 *lemon*

2 *dessertspoons demerara sugar*

Mix the oatmeal, sugar and ground ginger into a saucepan and grate the lemon rind into it. Pour in the lemon juice and boiling water and stir until the sugar dissolves. Simmer the mixture for ten minutes, strain and serve hot.



Vinegars and Cough Cures

There is no real connection between vinegar making and cough cures, but some of the flavoured vinegar recipes also included in this chapter are used mainly as cures for coughs and sore throats.

Vinegars

To most people the word vinegar means either malt or raspberry vinegar, whereas, in fact, a wide variety of pleasant flavours can be produced. These flavoured vinegars may be prepared either by turning fruit wines into vinegar or else by steeping the flavouring materials in distilled vinegar.

HOME BREWED VINEGARS

When wines are fermented every effort is made to prevent access of air by maintaining an atmosphere of carbon dioxide above the fermentation. This prevents vinegar bacteria, which are always present, from oxidising the alcohol formed by the yeasts into vinegar. Conversely, plentiful supplies of air are essential when preparing vinegar from wine. The starting material can be either undiluted cider, or wine plus an equal volume of water. If, due to an unfortunate combination of circumstances, a dry wine starts to go sour, it is better to turn it into vinegar rather than to inflict it on one's friends or to throw it away.

To every five parts of cider or diluted wine add one part of draught malt vinegar. Half fill a glass jar or a horizontal wooden barrel depending on the volume of vinegar to be made. The neck of the glass jar or the bung hole of the barrel should be plugged with non-absorbent cotton wool to keep out vinegar flies. If a wooden barrel is used, bore two 2 in. holes in one end just above the level of the vinegar and another two in the other side but near the edge of the horizontal staves. These holes must also be plugged with non-absorbent cotton wool. The barrel should be fitted with a wooden draw-off tap. A barrel previously used for transporting vinegar is ideal for the purpose.

Leave the jar or barrel in a warm room (90° to 95° F. preferably) for six to eight weeks, or three to six months at lower temperatures, when conversion to vinegar should be complete. This can only be tested in the home by tasting the vinegar, unless one knows a chemistry master or has a son doing chemistry. In such cases the acidity of the vinegar should be over 4 per cent as acetic acid. Three-quarters of the vinegar is decanted or run-off into clean jars which should be **full** when corked. Seal the tops of the jars with wax, since if the vinegar comes into contact with air during storage, the bacteria then attack the vinegar itself, turning it into carbon dioxide and water.

Replace the vinegar withdrawn from the jar or cask with an equal volume of cider or diluted wine and repeat the vinegar

making. This can be repeated many times providing care is exercised in maintaining the necessary warmth.

The storage jar should be kept in a cellar for nine months to clear. If it is then still hazy it should be clarified by adding one tablespoonful of milk to each gallon of vinegar and mixing thoroughly. Allow the precipitate to settle, then carefully syphon off the clear liquid and add two Campden tablets to each gallon of clear vinegar to preserve its clarity.

FLAVOURED VINEGARS

Herbs such as tarragon, borage, dill, mint, etc., may be left in the jar or cask during the process of vinegar making, using approximately a teacupful for each gallon of vinegar being prepared. They can also be made by steeping the herbs in vinegar for several days, then straining and bottling. Herb and garlic vinegars are used in making pickles or with meat dishes. In the following recipes the flavouring material is steeped with finished vinegar, which is then sweetened and used for easing sore throats or tickling coughs.

BLACKBERRY VINEGAR

1 pint white wine vinegar

1 lb. white sugar

1 pint ripe blackberries

$\frac{1}{2}$ lb. honey

Keep the blackberries and vinegar in a large, screwed down Kilner jar for one week, shaking several times each day. Strain into an enamelled saucepan, add the sugar and honey and just bring to the boil. Remove from the heat, stir until the sugar and honey dissolves and bottle when cool. Cork and wax and store in a cool, dark cupboard.

For colds and sore throats take a tablespoonful in a glass of hot water at bed time.

Blackberry vinegar can also be made using the recipe given for Raspberry Vinegar I.

BLACKCURRANT VINEGAR

3 lb. blackcurrants
white sugar

1 quart white vinegar

Bruise 1 lb. of strigged blackcurrants, cover with the vinegar and leave covered with a thick cloth for twenty-four hours. Strain and pour the liquid over a further pound of bruised currants. Again leave twenty-four hours and repeat with the remaining pound. Strain through a jelly bag but do not squeeze or else the vinegar will become cloudy. Add 1 lb. sugar to each pint of liquid and simmer gently for ten minutes, in an enamelled saucepan. Cool, bottle, cork and wax over the tops. Store in a dark cupboard.

RASPBERRY VINEGAR I

4½ lb. raspberries
white sugar

3 pints white vinegar

Put the bruised raspberries in a bowl, pour over the vinegar, cover with a thick cloth and leave for forty-eight hours. Strain through a muslin bag and collect the juice in an enamelled saucepan. Add 1 lb. of sugar to each pint, stir until the sugar dissolves and bring to the boil. Simmer gently and keep skimming until perfectly clear. Allow to cool, bottle, cork and wax the tops of the bottles before storing.

RASPBERRY VINEGAR II

Use the recipe and method given for Blackcurrant Vinegar.

Cough Cures

No recipes for cough mixtures containing paregoric and laudanum will be given since these are opium derivatives and are harmful, especially if given to children or taken in excess. The following recipes can be easily and quickly prepared and used with confidence. If the cough is not relieved within twelve to twenty-four hours a doctor should be consulted.

COUGH MIXTURE I

Mix thoroughly some honey and vinegar and take in small quantities when the cough is troublesome.

Alternatively, place a lump of sugar in a teaspoonful of vinegar; when the sugar has absorbed the liquid suck slowly.

COUGH MIXTURE II

Mix the juice of a lemon with 1 fluid oz. of glycerine and take a teaspoonful night and morning.

COUGH MIXTURE III

To relieve a severe attack of coughing take one tablespoonful of glycerine previously mixed with the same quantity of hot milk or cream.

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